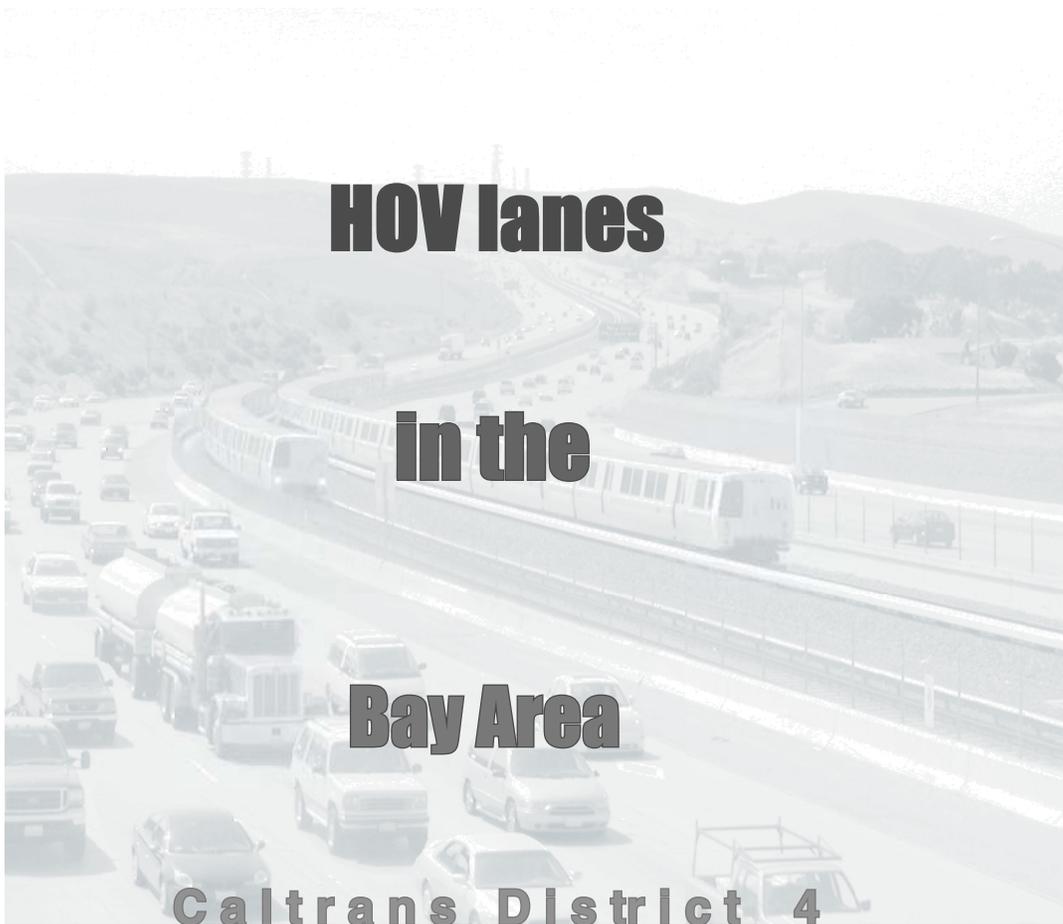


2003



HOV lanes

in the

Bay Area

Caltrans District 4

Volumes, occupancies and violation rates for freeway High Occupancy Vehicle Lanes in the San Francisco Bay Area



California Department of Transportation
District 4 Oakland
Office of Highway Operations



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INTRODUCTION

The ANNUAL HOVL REPORT is prepared by the Office of Highway Operations in District 4 of the California Department of Transportation (Caltrans). This report contains information concerning the High Occupancy Vehicle (HOV) lanes on the San Francisco Bay Area freeway system. Traffic performance data for calendar year 2003 for all mainline HOV lanes and HOV toll gates are provided that includes, traffic volumes, vehicle occupancies, HOV lanes time savings, and HOV lanes violation rates. Data for this report is collected twice* annually — once in the Spring and once in the Fall — when normal commute traffic patterns and conditions generally occur. Volumes and occupancy data for HOV bypass lanes at metered freeway on-ramps are not included in this annual report. However, general information on these ramps is included.

Major changes in 2003:

- The southbound & northbound HOV lanes on Route 101 in Santa Clara County were extended from Bernal Road to Cochrane Road on March 19, 2003, a distance of 9.8 miles.
- The eastbound HOV lane on Route 80 in Alameda County was extended for about 1.1 miles from Powell Street to Port of Oakland O.C. on November 12, 2003.
- About 1.1 mile of new HOV lane on northbound Route 880 from West Grand Avenue to eastbound Route 80 merge in Alameda County was opened on November 12, 2003.
- On December 11, 2003, the hours of operation for HOV lanes in both southbound & northbound directions of Route 101 between Route 12 interchange and Wilfred Avenue in Sonoma County were revised to 7-9 AM, and 3-6:30 PM (Monday - Friday).

* Due to resource shortfall data was collected once.

HOV Report Website:

This report is available for Download at www.dot.ca.gov/dist4/ by clicking on the Commute Help Link.

ACKNOWLEDGMENTS

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HOV FACILITIES SUMMARIES

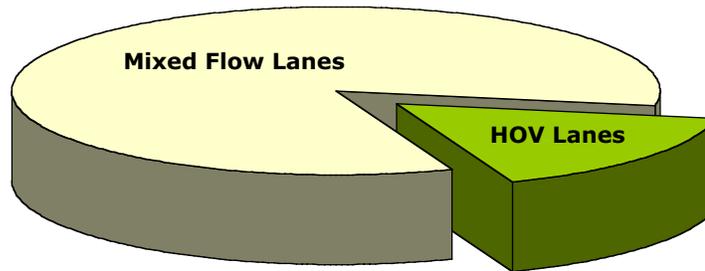
- **Comparison of HOV Lanes vs. Mixed Flow Lanes**
 - **Existing Mainline HOV Lanes**
 - **Metered On-Ramps with HOV Bypasses**
 - **Non-Metered HOV Lane On-Ramp**
 - **Mainline HOV Lanes Under Construction**
 - **Programmed HOV Lane Projects**
 - **Proposed HOV Lane Projects (Not Programmed)**
-

COMPARISON OF HOV LANES VS. MIXED FLOW LANES (Peak-Hour)

VEHICLES

(283,000 - vehicles per hour)

84%—



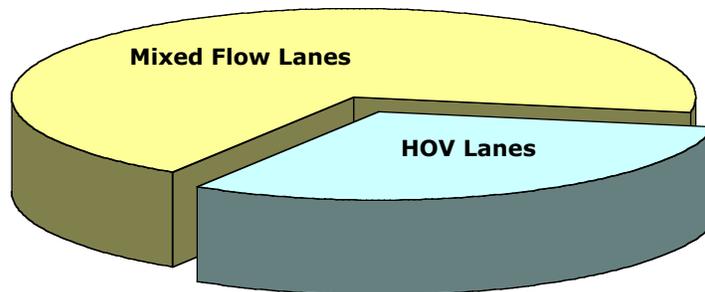
—16%

(55,300- vehicles per hour)

PEOPLE

(311,700 - persons per hour)

69%—



—31%

(141,600 - persons per hour)

NOTE: *Data shown is the relative proportion of vehicles or people in the mixed flow and carpool lanes averaged over all 82 count locations.*

EXISTING MAINLINE HOV LANES

Route	Dir	Limits	Lane-miles	Min. occ.	Period of operation *	
ALA-80	W/B	Bay Bridge Toll Plaza	2.9	3+	5-10 AM	3-7 PM
ALA-80	W/B	Contra Costa Co Line to Powell St	4.2	3+	5-10 AM	3-7 PM
	E/B	Port of Oakland O.C. to Contra Costa Co Line	5.3	3+	5-10 AM	3-7 PM
ALA-84	W/B	Newark Blvd to Dumbarton Bridge Toll Plaza	1.8	2+	5-10 AM	3-6 PM
ALA-92	W/B	Hesperian Blvd to San Mateo Bridge Toll Plaza	3.0	2+	5-10 AM	3-6 PM
ALA-680	S/B	Route 84 to Route 237 Calaveras Blvd.	14.0	2+	5-9 AM	3-7 PM
ALA-880	S/B	Marina Blvd to Mission Blvd	20.5	2+	5-9 AM	3-7 PM
	N/B	Mission Blvd to South of Rte 238 I/C	16.7	2+	5-9 AM	3-7 PM
ALA-880	N/B	NB West Grand Ave to EB Rte 880 HOV Lane Merge	1.1	3+	5-10 AM	3-7 PM
ALA-880	N/B	16th Street to SFOBB Toll Plaza	1.2	3+	5-10 AM	3-7 PM
CC-04	W/B	West of Railroad Ave. to Port Chicago Hwy	6.5	2+	6-9 AM	
	E/B	Port Chicago Hwy to West of Railroad Ave.	7.0	2+		3-7 PM
CC-80	W/B	Rte 4 to Alameda County Line	9.7	3+	5-10 AM	3-7 PM
	E/B	Alameda County Line to Rte 4	9.9	3+	5-10 AM	3-7 PM
CC-680	S/B	Livorna Rd to Alcosta Blvd	11.9	2+	6-9 AM	3-6 PM
	N/B	Alcosta Blvd to Livorna Rd	12.9	2+	6-9 AM	3-6 PM
MRN-101	S/B	Greenbrae ped o/c to Strawberry ped o/c	3.7	2+	6:30-8:30 AM	
	N/B	S/O Richardson Bay Br to Corte Madera	3.5	2+	4:30-7:00 PM	
	S/B	Rte 37 to San Pedro Rd	6.1	2+	6:30-8:30 AM	
	N/B	San Pedro Rd to Rte 37	6.1	2+	4:30-7:00 PM	
SCL-85	S/B	Rte 101 (Mountain View) to Bernal Rd	23.3	2+	5-9 AM	3-7 PM
	N/B	Rte 101 (So. San Jose) to Rte 101 (Mt. View)	23.8	2+	5-9 AM	3-7 PM
SCL-101	S/B	San Mateo Co. Line to Cochrane Rd	34.8	2+	5-9 AM	3-7 PM
	N/B	Cochrane Rd to San Mateo Co. Line	34.0	2+	5-9 AM	3-7 PM
SCL-237	W/B	McCarthy Blvd to Mathilda Ave	4.7	2+	5-9 AM	3-7 PM
	E/B	Mathilda Ave to Rte 880/237 Jct.	6.7	2+	5-9 AM	3-7 PM
SCL-280	S/B	Magdalena Ave to Meridian Ave	11.2	2+	5-9 AM	3-7 PM
	N/B	Leland Ave to Magdalena Ave	10.7	2+	5-9 AM	3-7 PM
SM-101	S/B	Whipple Ave to Santa Clara Co. Line	6.6	2+	5-9 AM	3-7 PM
	N/B	Santa Clara Co. Line to Whipple Ave	6.6	2+	5-9 AM	3-7 PM
SOL-80	E/B	Carquinez Bridge Toll Plaza	0.1	3+	5-10 AM	3-7 PM
SON-101	S/B	Route 12 to Wilfred Avenue	4.0	2+	6:30-9:30 AM	3-7 PM
	N/B	Wilfred Avenue to Route 12	4.0	2+	6:30-9:30 AM	3-7 PM

TOTAL EXISTING LANE-MILES 318.5

* **NOTE:** All HOV lanes currently operate Monday thru Friday.
 SON-101: Hours of Operations changed to 7-9 AM, 3-6:30 PM, Monday thru Friday
 on December 11, 2003.

METERED ON-RAMPS with HOV BYPASS LANES

Route	Dir	Ramp	Hours	HOVL metered?	Date opened	Notes
ALA-580	EB	Hopyard loop	2:30-7:30 pm	Yes	Jun 30, 2003	
ALA-580	EB	Hopyard diagonal	2:30-7:30 pm	Yes	Jun 30, 2003	
ALA-580	EB	Hacienda Loop	2:30-7:30 pm	Yes	Jun 30, 2003	
ALA-580	EB	Hacienda diagonal	2:30-7:30 pm	Yes	Jun 30, 2003	
ALA-580	EB	Santa Rita loop	2:30-7:30 pm	Yes	Jun 30, 2003	
ALA-580	EB	Santa Rita diagonal	2:30-7:30 pm	Yes	Jun 30, 2003	
<hr/>						
ALA-880	NB	Fremont Blvd loop	24 hrs	Yes	Oct 20, 1999	
ALA-880	NB	Auto Mall Pkwy(Durham) loop	24 hrs	Yes	Oct 20, 1999	
ALA-880	NB	Auto Mall Pkwy(Durham)diag	24 hrs	Yes	Oct 20, 1999	
ALA-880	NB	Stevenson Blvd. diagonal	24 hrs	Yes	Oct 20, 1999	
ALA-880	NB	E/B Mowry Ave loop	24 hrs	Yes	Oct 20, 1999	
ALA-880	NB	Thornton Ave loop	24 hrs	Yes	Oct 20, 1999	
ALA-880	NB	Thornton Ave diagonal	24 hrs	Yes	Oct 20, 1999	
ALA-880	NB	Alvarado-Fremont Blvd diag	24 hrs	Yes	Oct 20, 1999	
ALA-880	NB	Alvarado-Niles Rd diagonal	24 hrs	Yes	Oct 20, 1999	
ALA-880	NB	Industrial Parkway diagonal	24 hrs	Yes	Dec 3, 1996	
ALA-880	NB	Tennyson Rd diag	24 hrs	Yes	Dec 3, 1996	
ALA-880	NB	West A-Street diag	24 hrs	Yes	Dec 3, 1996	
ALA-880	NB	Lewelling Blvd diagonal	24 hrs	Yes	Apr 28, 1999	
ALA-880	NB	98th Ave loop	24 hrs	Yes	Apr 28, 1999	
ALA-880	NB	E/B 23rd Ave. diag	24 hrs	Yes	Apr 28, 1999	
ALA-880	SB	Fremont Blvd. diag	24 hrs	Yes	Oct 19, 1999	
ALA-880	SB	Fremont Blvd. loop	24 hrs	Yes	Oct 19, 1999	
ALA-880	SB	Auto Mall Pkwy(Durham)Diag	24 hrs	Yes	Oct 19, 1999	
ALA-880	SB	Auto Mall Pkwy(Durham)loop	24 hrs	Yes	Oct 19, 1999	
ALA-880	SB	W/B Mowry Ave loop	24 hrs	Yes	Oct 19, 1999	
ALA-880	SB	Thornton Ave. diagonal	24 hrs	Yes	Oct 19, 1999	
ALA-880	SB	Thornton Ave. loop	24 hrs	Yes	Oct 19, 1999	
ALA-880	SB	Alvarado-Fremont Blvd diag	24 hrs	Yes	Oct 19, 1999	
ALA-880	SB	Alvarado-Niles Rd diagonal	24 hrs	Yes	Oct 19, 1999	
ALA-880	SB	Alvarado-Niles Rd loop	24 hrs	Yes	Oct 19, 1999	
ALA-880	SB	Whipple Rd diag	24 hrs	Yes	Oct 29, 1996	
ALA-880	SB	Tennyson Rd diag	24 hrs	Yes	Oct 29, 1996	
ALA-880	SB	Winton Ave diag	24 hrs	Yes	Oct 29, 1996	
ALA-880	SB	West A-Street diag	24 hrs	Yes	Oct 29, 1996	
ALA-880	SB	E/B Davis St(Route 112) diag	24 hrs	Yes	Apr 27, 1999	
ALA-880	SB	W/B Davis St(Route 112)loop	24 hrs	Yes	Apr 27, 1999	
ALA-880	SB	98th Ave diagonal	24 hrs	Yes	Apr 27, 1999	
ALA-880	SB	Hegenberger diagonal	24 hrs	Yes	Apr 27, 1999	
ALA-880	SB	Oak St. diagonal	24 hrs	Yes	Apr 27, 1999	

- NOTES:**
- (a) Minimum occupancy requirement for all HOV bypass lanes is two persons per vehicle.
 - (b) Motorcycles and inherently low-emission vehicles (ILEVs) with DMV issued decal are permitted.
 - (c) Bypass lane restrictions are in effect 7 days a week unless noted otherwise.

METERED ON-RAMPS with HOV BYPASS LANES

Route	Dir	Ramp	Hours	HOVL metered?	Date opened	Notes
SCL-85	NB	NB Rte 101 connector	5-9am & 3-7pm	Yes	Aug 26, 1994	Monday - Friday
SCL-85	NB	Bernal Rd diag	24 hrs	Yes	Aug 26, 1994	7 days/week
SCL-85	NB	Great Oaks Blvd diag	24 hrs	Yes	Aug 19, 1994	7 days/week
SCL-85	NB	Cottle Rd diag	24 hrs	Yes	Aug 19, 1994	7 days/week
SCL-85	NB	Blossom Hill Rd loop	24 hrs	Yes	Aug 19, 1994	7 days/week
SCL-85	NB	Santa Teresa Blvd loop	24 hrs	Yes	Oct 19, 1994	7 days/week
SCL-85	NB	Almaden Expwy (nb) loop	24 hrs	Yes	Mar 19, 1999	7 days/week
SCL-85	NB	Bascom Ave diag	24 hrs	Yes	Oct 19, 1994	7 days/week
SCL-85	NB	Winchester Blvd diag	24 hrs	Yes	Nov 14, 1994	7 days/week
SCL-85	NB	Saratoga Ave diag	24 hrs	Yes	Oct 20, 1994	7 days/week
SCL-85	SB	Almaden Expwy diag	24 hrs	Yes	Oct. 19, 1994	7 days/week
SCL-85	SB	Bascom Ave diag	24 hrs	Yes	Oct 19, 1994	7 days/week
SCL-85	SB	Camden Ave diag	24 hrs	Yes	Apr 4, 1995	7 days/week
SCL-85	SB	Stevens Creek diag	24 hrs	Yes	Oct 19, 1994	7 days/week
SCL-101	NB	Bernal Rd loop	24 hrs	Yes	Jun 10, 1996	7 days/week
SCL-101	NB	Blossom Hill diag	24 hrs	Yes	Jun 23, 1992	7 days/week
SCL-101	NB	Capitol Expwy diag	24 hrs	Yes	Jul 11, 1997	7 days/week
SCL-101	NB	SB Rte 680 connector	5:30-9am	No	Sep 2, 1982	Monday - Friday
SCL-101	NB	Guadalupe Pkwy connector	5:30-9am	Yes	Feb 12, 1980	Monday - Friday
SCL-101	NB	Trimble Rd diag	24 hrs	Yes	Nov 1, 1991	7 days/week
SCL-101	NB	Montague Expwy diag	24 hrs	Yes	Feb 12, 1980	7 days/week
SCL-101	NB	Lawrence Expwy (nb) loop	24 hrs	Yes	Mar 8, 1999	7 days/week
SCL-101	NB	Lawrence Expwy (sb)diag	24 hrs	Yes	Mar 8, 1999	7 days/week
SCL-101	NB	San Tomas Expwy loop	5:30-9 am	No	Feb 12, 1980	Monday - Friday
SCL-237	EB	Lawrence Expwy diag	24 hrs	Yes	Aug. 14, 1998	7 days/week
SCL-237	EB	Great America Pkwy diag	24 hrs	Yes	Sep 24, 1996	7 days/week
SCL-237	EB	N. First Street diag	24 hrs	Yes	Sep 24, 1996	7 days/week
SCL-237	EB	Zanker Rd diag	24 hrs	Yes	Sep 24, 1996	7 days/week
SCL-280	NB	Wolfe Rd loop	6-9 am	Yes	Jun 8, 1976	Monday - Friday
SCL-280	SB	Wolfe Rd loop	24 hrs	Yes	Apr 27, 1993	7 days/week
SCL-280	SB	Wolfe Rd diag	24 hrs	Yes	Apr 27, 1993	7 days/week
SCL-280	SB	De Anza Blvd diag	24 hrs	Yes	Apr 27, 1993	7 days/week
SCL-880	NB	Calaveras Blv (wb) (diag)	24 hrs	Yes	Sep 9, 2003	7 days/week
SCL-880	NB	Rte 237 (EB) Connector OC	5-9am & 3-7pm	Yes	Sep 9, 2003	Monday-Friday

NON-METERED HOV LANE ON-RAMP

Route	Dir	Ramp	Hours	HOVL metered?	Date opened	Notes
SF-80	EB	Sterling St on-ramp to SFOBB	3:30-7:00 PM	No	Aug 30, 1982	

NOTES

- (a) *Minimum occupancy requirement is 3 or more persons per vehicle.*
- (b) *2 - seater vehicles with 2 persons, motorcycles and inherently low-emission vehicles (ILEVs) with DMV issued decal are permitted.*

MAINLINE HOV LANES UNDER CONSTRUCTION

Est. Opening	Route	Limits	Lane-miles	Min. Occ.
Jan-05	SB SCL-87	Rte 101 I/C to Julian Street	2.8	2+
Jan-05	NB SCL-87	Julian Street to Rte 101 I/C	2.8	2+
Summer 2006	SCL-85/101	Rte 85 and 101 Connectors (Mountain View)	1.4	2+
Summer 2004	SCL-85/101	Rte 85 and 101 Connectors (San Jose)	0.5	2+
May-05	SB MRN-101	Corte Madera Cr. to 580/101 Separation	1.3	2+
May-05	NB MRN-101	Corte Madera Cr. to 580/101 Separation	1.3	2+
Summer 2004	SCL-237	Rte 237 and 880 Connectors	0.3	2+

TOTAL LANE-MILES UNDER CONSTRUCTION 10.4

PROGRAMMED HOVL PROJECTS (From 2002 updated STIP)

County Route	EA	Location	Construct year	Cost (Prog. year)	Lane miles
ALA-84	443900	Westbound HOV On-ramp at Newark Ave	2004	\$2,900,000	0.8
ALA-84	44400K	Newark Ave to I-880/SR 84 I/C	2004	\$940,000	1.6
SCL/ALA-680	286000	Rte 237 to Rte 84 - NB	2006	\$42,300,000	19.4
SCL/ALA-880	233220/U1	Rte 237 to Mission Blvd (Rte 262)	Jun-09	\$58,400,000	8
CC-4	229011	w/o Railroad Avenue to w/o Loveridge	2004	\$29,700,000	1.6
CC-80	263700	Rte 4 to Carquinez Bridge - WB	2004	\$36,500,000	2.7
CC-680	228561	N. Main St to Marina Vista Blvd.	2004	\$35,400,000	8.7
MRN/SON-101	264000	Route 37 to Old Redwood Highway	2006	\$21,000,000	32.9
MRN-101	226131	Greenbrae POC to Corte Madera Cr.	2004	\$7,400,000	0.2
MRN-101	226141	Coleman School POC to N. San Pedro Rd.	2004	\$40,000,000	3.2
MRN-101	226151	580/101 Separation to Coleman School POC	2005	\$28,300,000	3
SON-101	0A180K	Old Redwood Highway to Rohnert Park Expwy	2005	\$10,000,000	12.8
SON-101	129650	Rohnert Park Expwy to Wilfred Ave	2007	\$47,800,000	2.6
SON-101	263900	Steel Lane to Bicentennial Way	2004	\$9,900,000	1.2
SON-101	0A100K	Bicentennial Way to Windsor	2009	\$6,000,000	14.2
SON-101	245400	Rte 12 to Steele Lane	2004	\$61,600,000	2.8

TOTAL	\$438,140,000	115.7
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PROGRAMMED HOVL PROJECTS (Locally Funded)

County Route	EA	Location	Construct year	Cost (Prog. year)	Lane miles
SCL-87	43961K	Julian St. to Rte 280 I/C (NB,SB)	Jul-07	\$33,000,000	2.4
SCL-87	43961K	Rte 280 I/C to Santa Teresa Bl.(NB,SB)	Jul-07	\$27,000,000	9.8

TOTAL	\$60,000,000	12.2
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PROPOSED HOVL PROJECTS (Not Programmed)

County Route	EA	Location	Post-Mile	Cost (Prog. year)	Lane miles
ALA-580	29080K	Tassajara Rd to Vasco Rd (EB, WB)	9.6/17.9	\$60,500,000	16.6
			TOTAL	\$60,500,000	16.6

DATA SUMMARIES

- **HOV Lane Peak Hour Volumes**
 - **HOV & Non-HOV Lane Peak Hour Comparisons**
 - **HOV Lane Peak Period Violation Rates**
 - **HOV Lane Peak Hour Time Savings and Average Speeds**
-

HOV LANE PEAK HOUR VOLUMES

			A.M.	P.M.
			Peak Hr (veh)	Peak Hr (veh)
ALA-80	WB	Bay Bridge Toll Plaza	3512	1122
ALA-80	WB	Contra Costa County Line to Powell St	1512	N/A
	EB	Port of Oakland O.C. to Contra Costa Co. Line	N/A	1295
ALA-84	WB	Newark Blvd to Dumbarton Bridge Toll Plaza	1043	337
ALA-92	WB	Hesperian Blvd to San Mateo Bridge Toll Plaza	1034	484
ALA-680	SB	Route 84 to Route 237 Calaveras Blvd.	575	366
ALA-880	SB	Marina Blvd to Whipple Road	1169	1289
		Whipple Road to Mission Blvd.	844	731
	NB	Mission Blvd to Whipple Road	402	890
		Whipple Road to South of Rte 238 I/C	1215	1254
ALA-880	NB	16th St to SFOBB Toll Plaza	630	125
CC-04	WB	West of Railroad Ave. to Port Chicago Hwy	1100	No HOV
	EB	Port Chicago Hwy to West of Railroad Ave.	No HOV	771
CC-80	WB	Route 4 to Alameda County Line	1514	N/A
	EB	Alameda County Line to Route 4	N/A	1118
CC-680	SB	Livorna Rd. to Alcosta Blvd.	824	870
	NB	Alcosta Blvd. to Livorna Rd.	868	1266
MRN-101	SB	Rte 37 to N. San Pedro Rd	1317	No HOV
		Greenbrae I/C to Richardson Bay Bridge	596	No HOV
	NB	Richardson Bay Bridge to Greenbrae I/C	No HOV	654
		N. San Pedro Rd to Rte 37	No HOV	843
SCL-85	SB	Rte 101 (Mountain View) to Rte 280	N/A	608
		Rte 280 to Almaden Expwy	N/A	743
		Almaden Expwy to Rte 101 (So. San Jose)	N/A	577
	NB	Rte 101 (So. San Jose) to Almaden Expwy	581	N/A
		Almaden Expwy to Rte 280	1085	N/A
		Rte 280 to Rte 101 (Mountain View)	510	N/A
SCL-101	SB	San Mateo Co. Line to Ellis St	628	944
		Ellis St to Guadalupe Pkwy	N/A	1272
		Guadalupe Pkwy to 101/280/680 I/C	N/A	640
		101/280/680 I/C to Bernal Rd	N/A	732
		Bernal Rd to Cochrane Rd	N/A	653
	NB	Cochrane Road to Bernal Road	678	N/A
		Bernal Rd to 101/280/680 I/C	1071	N/A
		101/280/680 I/C to Guadalupe Pkwy	1554	N/A
		Guadalupe Pkwy to Ellis St	880	N/A
		Ellis St to San Mateo Co. Line	798	1095

HOV LANE PEAK HOUR VOLUMES

			A.M.	P.M.
			Peak Hr (veh)	Peak Hr (veh)
SCL-237	WB	McCarthy Blvd to Mathilda Ave	634	313
	EB	Mathilda Ave to Rte 880/237 Jct.	N/A	605
SCL-280	SB	Magdalena Ave to Leland Ave	N/A	814
	NB	Leland Ave to Magdalena Ave	699	N/A
SM-101	SB	Whipple Ave to Santa Clara Co. Line	743	574
	NB	Santa Clara Co. Line to Whipple Ave	572	881
SOL-80	EB	Carquinez Bridge Toll Plaza	N/A	895
SON-101	S/B	Route 12 to Wilfred Avenue	353	632
	N/B	Wilfred Avenue to Route 12	338	647

N/A : Due to Resource shortfall 2003 data is not available.

PEAK HOUR HOV & non-HOV LANE COMPARISONS

				% of all vehicles		% of all Persons			
				in HOVL	in Non-HOVL	in HOVL	in Non-HOVL	Number of Non-HOV Lanes	in Non-HOVL (Avg per Lane)
ALA-80	WB	Bay Bridge Toll Plaza	AM	* 40%	** 60%	* 67%	** 33%	18	2%
			PM	* 14%	** 86%	* 33%	** 67%	18	4%
ALA-80	WB	Contra Costa County Line to Powell Street	AM	17%	83%	37%	63%	4	16%
			PM	N/A	N/A	N/A	N/A	4	N/A
	EB	Port of Oakland O.C. to Contra Costa Co. Line	AM	N/A	N/A	N/A	N/A	4	N/A
			PM	15%	85%	36%	64%	4	16%
ALA-84	WB	Newark Blvd to Dumbarton Bridge Toll Plaza	AM	25%	75%	43%	57%	3	19%
			PM	22%	78%	43%	57%	3	19%
ALA-92	WB	Hesperian Blvd to San Mateo Bridge Toll Plaza	AM	24%	76%	43%	57%	3	19%
			PM	16%	84%	33%	67%	3	22%
ALA-680	SB	Route 84 to Route 237 Calaveras Blvd	AM	9%	91%	18%	82%	3	27%
			PM	9%	91%	18%	82%	3	27%
ALA-880	SB	Marina Blvd to Whipple Rd	AM	21%	79%	39%	61%	3	20%
			PM	21%	79%	37%	63%	3	21%
		Whipple Rd to Mission Blvd	AM	14%	86%	29%	71%	3	24%
			PM	12%	88%	23%	77%	3	26%
	NB	Mission Blvd to Whipple Rd	AM	8%	92%	16%	84%	3	28%
			PM	16%	84%	29%	71%	3	24%
		Whipple Rd to South of Rte 238 I/C	AM	25%	75%	44%	56%	3	19%
			PM	20%	80%	37%	63%	3	21%
ALA-880	NB	16th Street to SFOBB	AM	33%	67%	57%	43%	2	22%
			PM	8%	92%	18%	82%	2	41%
CC-04	WB	W of Railroad Ave to Port Chicago Hwy	AM	22%	78%	35%	65%	3	22%
	EB	Port Chicago to W of Railroad Avenue	PM	22%	78%	34%	66%	3	22%
CC-80	WB	Route 4 to Alameda County Line	AM	26%	74%	49%	51%	3	17%
			PM	N/A	N/A	N/A	N/A	3	N/A
	EB	Alameda County Line to Route 4	AM	N/A	N/A	N/A	N/A	3	N/A
			PM	16%	84%	35%	65%	3	22%
CC-680	SB	Livorna Rd to Alcosta Blvd	AM	14%	86%	29%	71%	3	24%
			PM	14%	86%	24%	76%	3	25%
	NB	Alcosta Blvd to Livorna Rd	AM	14%	86%	30%	70%	3	23%
			PM	19%	81%	35%	65%	3	22%
MRN-101	SB	Rte 37 to N. San Pedro Rd	AM	21%	79%	37%	63%	3	21%
		Greenbrae I/C to Richardson Bay Brdg	AM	11%	89%	25%	75%	3	25%
	NB	Richardson Bay Brdg to Greenbrae I/C	PM	12%	88%	31%	69%	3	23%
		N. San Pedro Rd to Rte 37	PM	11%	89%	25%	75%	3	25%
SCL-85	SB	Rte 101 (Mtn View) to Rte 280	AM	N/A	N/A	N/A	N/A	2	N/A
			PM	14%	86%	23%	77%	2	38%
		Rte 280 to Almaden Expwy	AM	N/A	N/A	N/A	N/A	2	N/A
			PM	17%	83%	29%	71%	2	35%
		Almaden Expwy to Rte 101 (So. San Jose)	AM	N/A	N/A	N/A	N/A	2	N/A
			PM	13%	87%	23%	77%	2	39%
	NB	Rte 101 (So. San Jose) to Almaden Expwy	AM	17%	83%	30%	70%	2	35%
			PM	N/A	N/A	N/A	N/A	2	N/A
		Almaden Expwy to Rte 280	AM	26%	74%	42%	58%	2	29%
			PM	N/A	N/A	N/A	N/A	2	N/A
		Rte 280 to Rte 101 (Mtn View)	AM	14%	86%	24%	76%	2	38%
			PM	N/A	N/A	N/A	N/A	2	N/A

PEAK HOUR HOV & non-HOV LANE COMPARISONS

		% of all vehicles		% of all Persons					
		in HOVL	in Non-HOVL	in HOVL	in Non-HOVL	Number of Non-HOV Lanes	in Non-HOVL (Avg per Lane)		
SCL-101	SB	San Mateo Co. Line to Ellis St	AM	9%	91%	16%	84%	3	28%
			PM	18%	82%	30%	70%	3	23%
		Ellis St to Guadalupe Pkwy	AM	N/A	N/A	N/A	N/A	3	N/A
			PM	20%	80%	33%	67%	3	22%
		Guadalupe Pkwy to 101/280/680 I/C	AM	N/A	N/A	N/A	N/A	3	N/A
			PM	12%	88%	21%	79%	3	26%
		101/280/680 I/C to Bernal Rd	AM	N/A	N/A	N/A	N/A	3	N/A
			PM	17%	83%	27%	73%	3	24%
		Bernal Rd to Cochrane Rd	AM	N/A	N/A	N/A	N/A	3	N/A
			PM	17%	83%	30%	70%	3	23%
	NB	Cochrane Rd to Bernal Road	AM	14%	86%	25%	75%	3	25%
			PM	N/A	N/A	N/A	N/A	3	N/A
		Bernal Rd to 101/280/680 I/C	AM	19%	81%	32%	68%	3	23%
			PM	N/A	N/A	N/A	N/A	3	N/A
		101/280/680 I/C to Guadalupe Pkwy	AM	21%	79%	34%	66%	3	22%
			PM	N/A	N/A	N/A	N/A	3	N/A
		Guadalupe Pkwy to Ellis St	AM	15%	85%	26%	74%	3	N/A
			PM	N/A	N/A	N/A	N/A	3	N/A
Ellis St to San Mateo Co. Line	AM	13%	87%	22%	78%	3	26%		
	PM	18%	82%	29%	71%	3	24%		
SCL-237	WB	McCarthy Blvd to Mathilda Ave	AM	12%	88%	23%	77%	2	38%
			PM	7%	93%	14%	86%	2	43%
	EB	Mathilda Ave to Rte 880/237 Jct	AM	N/A	N/A	N/A	N/A	2	N/A
			PM	14%	86%	26%	74%	2	37%
SCL-280	SB	Magdalena Ave to Leland Ave	AM	N/A	N/A	N/A	N/A	3	N/A
			PM	15%	85%	26%	74%	3	25%
	NB	Leland Ave to Magdalena Ave	AM	12%	88%	21%	79%	3	26%
			PM	N/A	N/A	N/A	N/A	3	N/A
SM-101	SB	Whipple Ave to Santa Clara Co. Line	AM	13%	87%	23%	77%	3	26%
			PM	10%	90%	19%	81%	3	27%
	NB	Santa Clara Co. Line to Whipple Ave	AM	9%	91%	16%	84%	3	28%
			PM	15%	85%	27%	73%	3	24%
SOL-80	EB	Carquinez Bridge	AM	N/A	N/A	N/A	N/A	11	N/A
			PM	16%	84%	39%	61%	11	6%
SON-101	SB	Route 12 to Wilfred Avenue	AM	10%	90%	19%	81%	2	41%
			PM	16%	84%	25%	75%	2	37%
	NB	Wilfred Avenue to Route 12	AM	10%	90%	23%	77%	2	38%
			PM	17%	83%	30%	70%	2	35%

* Total in all 4 HOVL's combined.

** Total in all 18 Non HOVL's combined.

N/A : Due to Resource shortfall 2003 data is not available.

HOV LANE PEAK PERIOD VIOLATION RATE SUMMARY

			A.M.	P.M.
ALA-80	WB	Bay Bridge Toll Plaza	8.2%	14.7%
ALA-80	WB	Contra Costa County Line to Powell St	4.4%	N/A
	EB	Port of Oakland O.C. to Contra Costa Co. Line	N/A	9.3%
ALA-84	WB	Newark Blvd to Dumbarton Bridge Toll Plaza	0.9%	1.1%
ALA-92	WB	Hesperian Blvd to San Mateo Bridge Toll Plaza	1.3%	1.5%
ALA-680	SB	Route 84 to Route 237 Calaveras Blvd	0.2%	4.4%
ALA-880	SB	Marina Blvd to Whipple Road	3.7%	6.0%
		Whipple Road to Mission Blvd.	3.5%	4.2%
	NB	Mission Blvd to Whipple Road	2.5%	3.1%
		Whipple Road to South of Rte 238 I/C	1.4%	3.0%
ALA-880	NB	16th St to SFOBB Toll Plaza	5.6%	3.5%
CC-04	WB	West of Railroad Ave to Port Chicago Hwy.	3.6%	N/A
	EB	Port Chicago Hwy to West of Railroad Ave	N/A	1.9%
CC-80	WB	Rte 4 to Alameda County Line	27.2%	N/A
	EB	Alameda County Line to Rte 4	N/A	11.5%
CC-680	SB	Livorna Rd. to Alcosta Blvd.	0.6%	2.4%
	NB	Alcosta Blvd. to Livorna Rd.	5.0%	3.4%
MRN-101	SB	Rte 37 to N. San Pedro Rd	2.2%	No HOV
		Greenbrae I/C to Richardson Bay Bridge	3.4%	No HOV
	NB	Richardson Bay Bridge to Greenbrae I/C	No HOV	2.4%
		N. San Pedro Rd to Rte 37	No HOV	3.2%
SCL-85	SB	Rte 101 (Mountain View) to Rte 280	N/A	1.6%
		Rte 280 to Almaden Expwy	N/A	2.3%
		Almaden Expwy to Rte 101 (So. San Jose)	N/A	0.6%
	NB	Rte 101 (So. San Jose) to Almaden Expwy	0.0%	N/A
		Almaden Expwy to Rte 280	0.0%	N/A
		Rte 280 to Rte 101 (Mountain View)	0.8%	N/A
SCL-101	SB	San Mateo Co. Line to Ellis St	7.0%	1.4%
		Ellis St to Guadalupe Pkwy	N/A	3.6%
		Guadalupe Pkwy to 101/280/680 I/C	N/A	0.5%
		101/280/680 I/C to Bernal Rd	N/A	1.5%
		Bernal Rd to Cochrane Road	N/A	1.1%
	NB	Cochrane Rd to Bernal Rd	0.0%	N/A
		Bernal Rd to 101/280/680 I/C	1.0%	N/A
		101/280/680 I/C to Guadalupe Pkwy	2.6%	N/A
		Guadalupe Pkwy to Ellis St	0.6%	N/A
		Ellis St to San Mateo Co. Line	5.8%	7.2%

HOV LANE PEAK PERIOD VIOLATION RATE SUMMARY

			A.M.	P.M.
SCL-237	WB	Mcarthy On to Mathilda Ave	0.0%	5.6%
	EB	Mathilda Ave to Rte 880/237 Jct.	N/A	0.9%
SCL-280	SB	Magdalena Ave to Leland Ave	N/A	1.0%
	NB	Leland Ave to Magdalena Ave	7.5%	N/A
SM-101	SB	Whipple Ave to Santa Clara Co. Line	0.8%	2.5%
	NB	Santa Clara Co. Line to Whipple Ave	1.5%	2.0%
SOL-80	EB	Carquinez Bridge Toll Plaza	N/A	8.8%
SON-101	SB	Route 12 to Wilfred Avenue	4.8%	2.7%
	NB	Wilfred Avenue to Route 12	6.0%	3.2%

N/A: Due to Resource shortfall 2003 data is not available.

HOV LANE PEAK HOUR TIME SAVINGS AND AVERAGE SPEEDS

				Travel Time		HOVL Time Saving (minutes)	Avg. Speed	
				(minutes) Non-HOVL	(minutes) HOVL		(mph) Non-HOVL	(mph) HOVL
ALA-80	WB	Bay Bridge Toll Plaza	AM	17	4	13	5	33
			PM	11	2	9	14	65
ALA-80	WB	Contra Costa County Line to Powell St	AM	9	7	2	26	36
			PM	10	4	6	29	65
*	EB	Port of Oakland O.C. to Contra Costa Co. Line	AM	5	5	0	65	65
			PM	10	5	5	17	65
ALA-84	WB	Newark Blvd to Dumbarton Bridge Toll Plaza	AM	3	2	1	54	60
			PM	3	2	1	54	60
ALA-92	WB	Hesperian Blvd to San Mateo Bridge Toll Plaza	AM	3	3	0	60	60
			PM	3	3	0	60	60
ALA-680	SB	Route 84 to Route 237 Calaveras Blvd.	AM	16	13	3	53	65
ALA-880	SB	Marina Blvd. to Whipple Road	AM	26	8	18	20	65
			PM	13	8	5	40	65
		Whipple Road to Mission Blvd	AM	31	11	20	23	65
			PM	15	11	4	48	65
	NB	Mission Blvd. to Whipple Road	AM	16	11	5	45	65
			PM	22	11	11	32	65
		Whipple Road to South of Rte 238 I/C	AM	12	4	8	24	65
			PM	15	4	11	20	65
ALA-880	NB	16th St to SFOBB Toll Plaza	AM	8	3	5	5	44
			PM	3	2	1	44	65
CC-04	WB	West of Railroad to Port Chicago Hwy	AM	11	6	5	35	65
			PM	14	6	8	30	65
CC-80	WB	Rte 4 to Alameda County Line	AM	21	13	8	23	45
			PM	11	11	0	65	65
	EB	Alameda County Line to Rte 4	AM	10	10	0	65	65
			PM	19	10	9	28	65
CC-680	SB	Livorna Rd to Alcosta Blvd	AM	16	11	5	45	65
			PM	15	11	4	48	65
	NB	Alcosta Blvd to Livorna Rd	AM	16	12	4	48	65
			PM	20	12	8	39	65
MRN-101	SB	Rte 37 to N. San Pedro Rd Greenbrae I/C to Richardson Bay Brdg	AM	24	14	10	15	26
			AM	5	3	2	44	65
	NB	Richardson Bay Brdg to Greenbrae I/C N. San Pedro Rd to Rte 37	PM	10	5	5	21	42
			PM	5	5	0	65	65
SCL-85	SB	Rte 101 (Mtn View) to Rte 280	AM	6	5	1	54	65
			PM	13	5	8	25	65
		Rte 280 to Almaden Expwy	AM	11	11	0	65	65
			PM	23	11	12	34	65
		Almaden Expwy to Rte 101 (So. San Jose)	AM	6	5	1	54	65
			PM	7	5	2	46	65
	NB	Rte 101 (So. San Jose) to Almaden Expwy	AM	14	6	8	28	65
			PM	6	6	0	65	65
		Almaden Expwy to Rte 280	AM	26	13	13	29	60
			PM	13	12	1	60	65
		Rte 280 to Rte 101 (Mtn View)	AM	16	5	11	20	65
			PM	6	5	1	54	65

NOTE: *Time Savings shown on EB ALA-80 is from Powell St to Contra Costa County Line only.

HOV LANE PEAK HOUR TIME SAVINGS AND AVERAGE SPEEDS

				Travel Time	Travel Time	HOVL	Avg. Speed	Avg. Speed
				(minutes)	(minutes)	Time Saving	(mph)	(mph)
				Non-HOVL	HOVL	(minutes)	Non-HOVL	HOVL
SCL-101	SB	San Mateo Co. Line to Ellis St	AM	15	5	10	22	65
			PM	18	5	13	18	65
		Ellis St to Guadalupe Pkwy	AM	7	6	1	56	65
			PM	10	7	3	46	65
		Guadalupe Pkwy to 101/280/680 I/C	AM	6	5	1	54	65
			PM	21	9	12	14	30
	101/280/680 I/C to Bernal Rd	AM	8	7	1	57	65	
		PM	11	7	4	41	65	
	Bernal Rd to Cochrane Road	AM	-	-	-	-	-	
		PM	9	9	0	63	65	
	NB	Cochrane Road to Bernal Road	AM	15	9	6	40	65
			PM	-	-	-	-	-
		Bernal Rd to 101/280/680 I/C	AM	17	8	9	31	65
			PM	9	8	1	58	65
		101/280/680 I/C to Guadalupe Pkwy	AM	20	7	13	13	36
			PM	5	5	0	65	65
		Guadalupe Pkwy to Ellis Street	AM	9	6	3	43	65
			PM	11	6	5	35	65
Ellis to San Mateo Co. Line		AM	8	5	3	40	65	
		PM	10	5	5	32	65	
SCL-237	WB	McCarthy Blvd to Mathilda Ave	AM	12	7	5	38	65
			PM	9	7	2	50	65
	EB	Mathilda Ave to Rte 880/237 Jct.	AM	8	6	2	49	65
			PM	18	12	6	22	33
SCL-280	SB	Magdalena Ave to Leland Ave	AM	11	10	1	59	65
			PM	19	10	9	34	65
	NB	Leland Ave to Magdalena Ave	AM	16	10	6	41	65
			PM	12	10	2	54	65
SM-101	SB	Whipple Ave to Santa Clara Co. Line	AM	20	7	13	22	65
			PM	10	7	3	46	65
	NB	Santa Clara Co. Line to Whipple Ave	AM	13	6	7	30	65
			PM	16	6	10	24	65
SOL-80	EB	Carquinez Bridge Toll Plaza	AM	1	1	0	65	65
			PM	1	1	0	65	65
SON-101	SB	Rte 12 to Wilfred Avenue	AM	5	4	1	48	65
			PM	5	4	1	48	65
	NB	Wilfred Ave to Rte 12	AM	6	4	2	40	65
			PM	10	5	5	24	48
Overall Average Speed							39.2	61.4

GENERAL FACILITY INFORMATION

- **Mainline HOV Lanes**
 - **Toll Bridge HOV Bypass Lanes**
-

MAINLINE HOV LANES

ALA-80: San Francisco-Oakland Bay Bridge Toll Plaza

OCCUPANCY	Three or more persons per vehicle, motorcycles, 2-seat vehicles with 2 persons, inherently low-emission vehicles (ILEVs) with DMV issued decal.																																			
WESTBOUND	HOURS:	5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday																																		
	LIMITS:	<table border="0"> <tr> <td style="padding-right: 20px;">Lane 1:</td> <td>Route 880 left side HOV ramp to metering signals Length = 0.4 mile</td> </tr> <tr> <td>Lane 2:</td> <td>Route 580 connector to metering signals Length = 1.1 miles</td> </tr> <tr> <td>Lane 21:</td> <td>Route 880 right side HOV ramp to metering signals Length = 0.6 mile</td> </tr> <tr> <td>Lane 22:</td> <td>HOV slip ramp to metering signals Length = 0.8 miles</td> </tr> </table>	Lane 1:	Route 880 left side HOV ramp to metering signals Length = 0.4 mile	Lane 2:	Route 580 connector to metering signals Length = 1.1 miles	Lane 21:	Route 880 right side HOV ramp to metering signals Length = 0.6 mile	Lane 22:	HOV slip ramp to metering signals Length = 0.8 miles																										
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Dec 8, 1971	Carpools permitted; min. occ. three persons per vehicle																																			
Feb 2, 1979	Buses only in lane 17; 6:30-8:30, Mon-Fri-only lane on W. Grand Ave, approached from Maritime on-ramp to toll plaza; temporary measure in response to BART tube closure																																			
Apr 17, 1979	Bus-only in lane 17 & W. Grand Ave approach made permanent; W. Grand Ave slip ramp designated for buses only; hours of operation changed to 6:00-9:00 AM, Mon-Fri; lane 8 reverted to mixed flow; carpools permitted to use lane 10 during AM peak																																			
Oct 12, 1981	Opened; lanes 18 & 19; buses only, 24 hours/day, 7 days/week; carpools permitted, 6:00-9:00 AM, Mon-Fri; lane 17 reverted to mixed flow																																			
Jul 18, 1983	Lanes 8 & 9 reverted to mixed flow; lane 1 converted to HOV; lanes 18/19 merge moved from downstream of toll plaza to downstream of metering signals																																			
Apr 22, 1986	Mini toll plaza (lane 18, 19, 20) opened; right side HOV lanes designated as lanes 21 & 22																																			
Sep 7, 1988	Hours of Operation were extended from 6-9 AM to 5-10 AM on September 7, 1988.																																			
Sep 7, 1988	The HOVL violation fine increased in early 1989.																																			
Nov 3, 1989	Lane 2 converted to HOV; left HOVL extended upstream to 32nd St on-ramp; AM HOV hours changed to 5:00- 10:00 AM, Mon-Fri																																			
Mar 1, 1992	Motorcycles permitted																																			
Oct 1, 1995	Two-seat vehicles with two occupants permitted																																			
Apr 8, 1997	HOV slip ramp approaching right side of toll plaza opened; buses only, 24 hours/day, 7 days/week; carpools/motorcycles OK, 5:00-10:00 AM, 3:00-6:00 PM, Mon-Fri																																			
Jul 23, 1997	Route 880 right side HOV ramp opened; buses only, 24 hours/day, 7 days/week; carpools/motorcycles OK, 5:00-10:00 AM; 3:00-6:00 PM, Mon-Fri																																			
Feb. 2, 1998	PM Hours of operation changed to 3:00-7:00 PM																																			
May 16, 1998	Route 880 left side HOV ramp opened; buses/carpools/ motorcycles only, 5:00-10:00 AM, 3:00-7:00 PM, Mon-Fri																																			
Jul 1, 2000	Inherently low-emission vehicles with DMV issued decals permitted.																																			

ALA-80: Contra Costa County Line to Powell St

OCCUPANCY	Three or more persons per vehicle, motorcycles, 2 seater vehicles with 2 persons, inherently low-emission vehicles (ILEVs) with DMV issued decal.	
WESTBOUND	HOURS:	5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday
	LIMITS:	Contra Costa County Line (MP 8.0) to Powell St (MP 3.8) Length = 4.2 miles
	DATES:	Feb. 2, 1998 Opened; Contra Costa County Line to Powell St; HOV flyover opened; hours of operation 5:00 AM-7:00 PM, Monday thru Friday Aug 3, 1998 Hours of operation changed to 5-10 AM, 3-7 PM, Mon-Fri
EASTBOUND	HOURS:	5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday
	LIMITS:	Port of Oakland O.C.(MP 2.7) to Contra Costa County Line (MP 8.0) Length = 5.3 miles
	DATES:	Jul 31, 1998 Opened; Gilman St to Contra Costa County Line Aug 3, 1998 Hours of operation changed to 5-10 AM, 3-7 PM, Mon-Fri Nov 20, 1998 Extended; Powell St to Gilman St. Nov 12, 2003 Extended; Port of Oakland OC. To Powell St.

ALA-84: Newark Blvd to Dumbarton Bridge Toll Plaza

OCCUPANCY	Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs) with DMV issued decal.	
WESTBOUND	HOURS:	5:00 - 10:00 AM, 3:00 - 6:00 PM, Monday thru Friday
	LIMITS:	Newark Blvd U/C (MP 4.9) to west of Toll Plaza (MP 3.1) Length = 1.8 miles
	DATES:	Oct 6, 1982 Opened with new bridge; 1000-ft long bypass lane at booths Nov 22, 1989 Extended due to Loma Prieta quake; Newark Blvd to University Ave Nov 17, 1990 Shortened; Newark Blvd to west of Toll Plaza Jan 1, 1992 Minimum occupancy reduced from three to two persons per vehicle
	NOTE:	HOV lane is located on the left side.

NORTHBOUND HOURS: 5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: Mission Blvd. (MP 2.4) to one mile south of Rte 238 (MP 19.3)
Length = 16.7 miles

DATES: Sep 19, 1991 Opened; north of Tennyson to A-Street
Nov 8, 1991 Extended; Industrial Pkwy to Tennyson
Jun 26, 1992 Extended; A-Street to Rte 238
Dec 3, 1993 Extended; Whipple Rd to Industrial Pkwy
Dec 1994 Hours of operation changed from 5-10 AM and 3-6 PM to
5-9 AM, 3-7 PM respectively
Sep 23, 1996 Shortened; Whipple Rd to one mile south of Rte 238
Jun 15, 1998 Extended; Alvarado/Fremont Blvd. to Whipple Rd.
Oct 30, 1998 Extended; Mowry Ave. to Alvarado/Fremont Blvd.
Nov 30, 1998 Extended; Mission Blvd. (Rte 262) to Mowry Ave.

ALA-880: 16th Street to SFOBB Toll Plaza

OCCUPANCY Three or more persons per vehicle, motorcycles, 2-seat vehicles with 2 persons,
inherently low-emission vehicles (ILEVs) with DMV issued decal.

NORTHBOUND HOURS: 5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: 16th Street to SFOBB Toll Plaza
Length = 1.2 miles

DATES: May 16, 1998 Opened; 16th Street to left HOV ramp at SFOBB Toll Plaza

ALA-880: West Grand Ave. to EB Rte 80 HOV Lane Merge

OCCUPANCY Three or more persons per vehicle, motorcycles, 2-seat vehicles with 2 persons,
inherently low-emission vehicles (ILEVs) with DMV issued decal.

NORTHBOUND HOURS: 5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: West Grand Ave.(MP R34.7) to EB Rte 80 HOV Lane Merge (MP R35.8)
Length = 1.1 miles

DATES: Nov 12, 2003 Opened; West Grand Ave to EB Rte 80 HOV Lane Merge

CC-4: West of Railroad Ave. to Port Chicago Highway

OCCUPANCY Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs)
with DMV issued decal.

WESTBOUND HOURS: 6:00 - 9:00 AM, Monday thru Friday

LIMITS: West of Railroad Ave. (MP 22.6) to Port Chicago Highway (MPR16.2)
Length = 6.5 miles

DATES: May 1, 2000 Opened; Bay Point to Port Chicago Highway; 6-9 AM, Mon-Fri
 May 5, 2000 Extended: Bailey Road to Port Chicago Highway
 Jul 23, 2001 Extended: West of Railroad Ave. to Port Chicago Highway

EASTBOUND HOURS: 3:00 - 7:00 PM, Monday thru Friday

LIMITS: Port Chicago Highway (MPR 16.2) to West of Railroad Ave. (MPR22.5)
 Length = 7.0 miles

DATES: Aug 6, 2001 Opened; Port Chicago Highway to West of Railroad Ave.;
 3-7 PM. Mon-Fri.

CC-80 Route 4 to Alameda County Line

OCCUPANCY Three or more persons per vehicle, motorcycles, 2-seat vehicles with 2 persons,
 inherently low-emission vehicles (ILEVs) with DMV issued decal.

WESTBOUND HOURS: 5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: Route 4 (MP 9.67) to Alameda County Line (MP 0.0)
 Length = 9.7 miles

DATES: Mar 5, 1997 Opened; Pinole Valley Rd to Cutting Blvd; 5-10 AM, Mon-Fri
 Apr 18, 1997 2-seat vehicles with 2 persons permitted to use HOVL
 May 3, 1997 Extended: Cutting Blvd to Central Ave
 Sep 20, 1997 Extended; Route 4 to Pinole Valley Rd
 Feb 2, 1998 Extended; Central Ave to Alameda County Line;
 Hours of operation changed to 5:00 AM-7:00 PM, Mon-Fri
 Aug 3, 1998 Hours of operation changed to 5-10 AM, 3-7 PM, Mon-Fri

EASTBOUND HOURS: 5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: Alameda County Line (MP 0.0) to West of Route 4 off-ramp (MP 9.9)
 Length = 9.9 miles

DATES: Feb 12, 1997 Opened; San Pablo Dam Rd to Pinole Valley Rd; 3-7 PM, Mon-Fri
 Feb 13, 1997 Extended; Cutting Blvd to San Pablo Dam Rd
 Apr 18, 1997 2-seat vehicles with 2 persons permitted to use HOVL
 May 3, 1997 Extended; Central Ave to Cutting Blvd
 Aug 30, 1997 Extended; Pinole Valley Rd to Route 4
 Feb 2, 1998 Hours of operation changed to 5:00 AM-7:00 PM, Mon-Fri
 Aug 3, 1998 Hours of operation changed to 5-10 AM, 3-7 PM, Mon-Fri
 Extended; Central Ave to Alameda County Line

CC-680: Livorna Rd to Alcosta Blvd.

OCCUPANCY	Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs) with DMV issued decal.	
SOUTHBOUND	HOURS:	6:00 - 9:00 AM, 3:00 - 6:00 PM, Monday thru Friday
	LIMITS:	0.5 miles north of Livorna Rd off-ramp (MP R11.9) to 0.6 miles south of Alcosta Blvd on-ramp (MP R21.6) Length = 11.9 miles
	DATES:	Oct 3, 1994 Opened; Stone Valley Rd on-ramp to Alcosta Blvd on-ramp Feb 6, 1995 Extended; Livorna Rd on-ramp to Alcosta Blvd May 5, 1999 Shortened; Livorna Rd on-ramp to north of Alcosta Blvd off-ramp
NORTHBOUND	HOURS:	6:00 - 9:00 AM, 3:00 - 6:00 PM, Monday thru Friday
	LIMITS:	0.4 miles south of Alcosta on-ramp (MP R21.6) to Livorna on-ramp (MP R11.9) Length = 12.9 miles
	DATES:	Oct 3, 1994 Opened; Alcosta Blvd on-ramp to Stone Valley Rd on-ramp Feb 6, 1995 Extended; Alcosta Blvd to Livorna Rd on-ramp

MRN-101: Richardson Bay Bridge to Greenbrae I/C

OCCUPANCY	Two or more persons per vehicle, motorcycles permitted, inherently low-emission vehicles (ILEVs) with DMV issued decal.	
SOUTHBOUND	HOURS:	6:30 - 8:30 AM, Monday thru Friday
	LIMITS:	North of Greenbrae ped OC (MP 8.4) to south of Strawberry ped OC (MP 4.7) Length = 3.7 miles
	DATES:	Dec 23, 1974 Opened; buses only Jun 16, 1976 Carpools permitted; min. occ. three persons per vehicle Oct 1, 1988 Minimum occupancy reduced from three to two persons per vehicle Sep 23, 1990 Motorcycles permitted Jul 13, 1998 HOV hours extended to 5:00-9:00 AM Dec 14, 1998 Extended hours cancelled
NORTHBOUND	HOURS:	4:30 - 7:00 PM, Monday thru Friday
	LIMITS:	South of Richardson Bay Bridge (MP 4.0) to north of Corte Madera O/C (MP 7.5) Length = 3.5 miles
	DATES:	Dec 20, 1974 Opened; buses only Jun 15, 1976 Carpools permitted; min. occ. three persons per vehicle Oct 1, 1988 Minimum occupancy reduced from three to two persons per vehicle Sep 23, 1990 Motorcycles permitted Jul 13, 1998 HOV hours extended to 3:00-7:00 PM Dec 14, 1998 Extended hours cancelled

MRN-101: North San Pedro Rd to Rte 37

OCCUPANCY	Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs) with DMV issued decal.	
SOUTHBOUND	HOURS:	6:30 - 8:30 AM, Monday thru Friday
	LIMITS:	Route 37/S. Novato Blvd (MP 18.9) to north of San Pedro U/C (MP 12.8) Length = 6.1 miles
	DATES:	Jul 24, 1987 Opened; Marinwood to North San Pedro Rd Oct 1, 1988 Minimum occupancy reduced from three to two persons per vehicle Sep 23, 1990 Motorcycles permitted Feb 8, 1991 Extended; Marinwood to Rte 37 Jul 13, 1998 HOV hours extended to 5:00-9:00 AM Dec 14, 1998 Extended hours cancelled
NORTHBOUND	HOURS:	4:30 - 7:00 PM, Monday thru Friday
	LIMITS:	North of San Pedro U/C (MP 12.8) to Route 37/S. Novato Blvd (MP 18.9) Length = 6.1 miles
	DATES:	Aug 12, 1986 Opened; North San Pedro to Marinwood Oct 1, 1988 Minimum occupancy reduced from three to two persons per vehicle Sep 23, 1990 Motorcycles permitted Feb 21, 1991 Extended; Marinwood to Rte 37 Jul 13, 1998 HOV hours extended to 3:00-7:00 PM Dec 14, 1998 Extended hours cancelled

SCL-85: Rte 101 (Mountain View) to Rte 101 (So. San Jose)

OCCUPANCY	Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs) with DMV issued decal.	
SOUTHBOUND	HOURS:	5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday
	LIMITS:	Rte 101 (MP 23.8) to Bernal Rd (MP 0.5) Length = 23.3 miles
	DATES:	Apr 25, 1990 Opened; Rte 237 to Rte 280 Aug 12, 1994 New section; Almaden Expwy to Bernal Rd Oct 19, 1994 Extended; Rte 280 to Almaden Expwy Nov 13, 1998 Extended; Rte 101 (Mountain View) to Rte 237
NORTHBOUND	HOURS:	5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday
	LIMITS:	Rte 85/101 connector ramp in So. San Jose (MP 0.0) to Rte 101 in Mountain View (MP 23.8) Length = 23.8 miles
	DATES:	Feb 22, 1990 Opened; Rte 280 to Rte 237 Aug 12, 1994 New section; Rte 101 (So. San Jose) to Almaden Expwy Oct 19, 1994 Extended; Almaden Expwy to Rte 280 Nov 6, 1998 Extended; Rte 237 to Rte 101 (Mountain View)

SCL-101: San Mateo County Line to Cochrane Rd

OCCUPANCY Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs) with DMV issued decal.

SOUTHBOUND HOURS: 5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: San Mateo County Line (M 52.6) to 0.5 mile north of Cochrane Rd off-ramp (MP 18.7)
Length = 34.8 miles

DATES: Nov 10, 1986 Opened; Lawrence Expwy to De La Cruz Blvd
Aug 8, 1988 Extended; Ellis St to Lawrence Expwy
Oct 10, 1988 Extended; N. Rengstorff Ave to Ellis St
Dec 12, 1988 Extended; San Mateo Co. Line to N. Rengstorff Ave
Jun 15, 1990 New section; Rte 101/280/680 I/C to north of Bernal Rd
Jan 29, 1993 Extended; Rte 880 to Rte 101/280/680 I/C
Apr 5, 1993 Extended; De La Cruz Blvd to Rte 880
Mar 19, 2003 Opened; Bernal Road to Cochrane Road

NORTHBOUND HOURS: 5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: Cochrane Rd on-ramp (MP 17.9) to San Mateo County Line (MP 51.2)
Length = 34 miles

DATES: Nov 7, 1986 Opened; Guadalupe Pkwy to Great America Pkwy
Oct 10, 1988 Extended; Great America Pkwy to N. Rengstorff Ave
Dec 12, 1988 Extended; N. Rengstorff Ave to San Mateo Co. Line
Jun 7, 1990 New section; Bernal Rd to Rte 101/280/680 I/C
Feb 1, 1993 Extended; Rte 101/280/680 I/C to Old Oakland Rd
Apr 5, 1993 Extended; Old Oakland Rd to Guadalupe Pkwy
Mar 19, 2003 Opened; Cochrane Rd to Bernal Road

SCL-237: Rte 880 to Mathilda Ave

OCCUPANCY Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs) with DMV issued decal.

WESTBOUND HOURS: 5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: McCarthy Rd on-ramp (MP 8.7) to east of Mathilda Ave (MP 4.0)
Length = 4.7 miles

DATES: Oct 31, 1984 Opened; Rte 880 to Lawrence Expwy; right side HOVL
Nov/Dec 1991 Extended; Lawrence Expwy to east of Mathilda Ave; right side HOVL
May 1, 1995 Rte 237 upgraded to fwy; HOVL relocated to left lane;
hours expanded to include the PM peak (3-7 PM)

EASTBOUND HOURS: 5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: Mathilda Ave (MP 3.4) to Jct Rte 880/237
Length = 6.7 miles

DATES: Oct 31, 1984 Opened; Lawrence Expwy to Rte 880; right side HOVL
Nov/Dec 1991 Extended; Mathilda Ave to Rte 880
May 1, 1995 Rte 237 upgraded to fwy; HOVL relocated to left lane;
hours expanded to include the AM peak (5-9 AM)
Oct 2, 1996 Shortened; Mathilda Ave to 1.1 miles west of Rte 880

SCL-280: Magdalena Ave to Leland Ave

OCCUPANCY Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs)
with DMV issued decal.

SOUTHBOUND HOURS: 5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: Magdalena Ave on-ramp (MP 14.0) to north of Meridian Ave (MP R4.2)
Length = 11.2 miles

DATES: Dec 1, 1990 Opened; Magdalena Ave to north of Meridian Ave

NORTHBOUND HOURS: 5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: South of Leland Ave (MP L4.7) to Magdalena Ave off-ramp (MP 14.0)
Length = 10.7 miles

DATES: Nov 21, 1990 Opened; south of Leland Ave to Magdalena Ave

SM-101: Whipple Ave to Santa Clara County Line

OCCUPANCY Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs)
with DMV issued decal.

SOUTHBOUND HOURS: 5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: Whipple Ave (MP 6.6) to Santa Clara Co. Line (MP 0.0)
Length = 6.6 miles

DATES: Jul 18, 1991 Opened

NORTHBOUND HOURS: 5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: Santa Clara Co. Line (MP 0.0) to Whipple Ave (MP 6.6)
Length = 6.6 miles

DATES: Jul 16, 1991 Opened

SOL-80: Carquinez Bridge Toll Plaza

OCCUPANCY Three or more persons per vehicle, motorcycles, 2-seat vehicles with 2 persons, inherently low-emission vehicles (ILEVs) with DMV issued decals.

EASTBOUND HOURS: 5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: 0.1 miles West of Toll Plaza (MP 0.5) to east of Toll Plaza (MP 0.6)
Length = 0.1 mile

DATES: Jul 1, 1991 Reduced 10c toll tickets for HOVs (with purchase of 50-ticket book)
Oct 1, 1995 Toll-free passage in designated booth only;
Two-seat vehicles with two occupants permitted
Jul 30, 1997 Opened; West of Toll Plaza to east of Toll Plaza

NOTE: HOV lane is located in toll booth #6

SON-101: Rte 12 to Wilfred Avenue

OCCUPANCY Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs) with DMV issued decal.

SOUTHBOUND HOURS: 6:30 - 9:30 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: Route 12 to North of Wilfred Avenue
Length = 4 miles

DATES: Nov 4, 2002 Opened.
Dec 11, 2003 Hours of Operation changed to 7-9 AM, 3-6:30 PM, MON - FRI

NORTHBOUND HOURS: 6:30 - 9:30 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: Wilfred Avenue to South of Route 12
Length = 4 miles

DATES: Nov 4, 2002 Opened.
Dec 11, 2003 Hours of Operation changed to 7-9 AM, 3-6:30 PM, MON - FRI

TOLL BRIDGE HOV BYPASS LANES

Benicia-Martinez, Antioch Bridges

OCCUPANCY	Three or more persons per vehicle, motorcycles, two-seat vehicles with two occupants, inherently low-emission vehicles (ILEVs) with DMV issued decals.	
HOURS	5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday	
TOLL-FREE BOOTH	Benicia	#4, #5
	Antioch	#2, #3
DATES	Jul 1, 1991	Reduced 10¢ toll tickets for HOVs (with purchase of 50-ticket book)
	Oct 1, 1995	Toll-free passage in designated booth only; Two-seat vehicles with two occupants permitted

Richmond-San Rafael Bridge

OCCUPANCY	Three or more persons per vehicle, motorcycles, two-seat vehicles with two occupants, inherently low-emission vehicles (ILEVs) with DMV issued decals.	
HOURS	5:00 - 10:00 AM, 3:00 - 6:00 PM, Monday thru Friday	
TOLL-FREE BOOTH	#7	
DATES	Oct. 23, 1989	Toll-free passage in designated booth only;
	Oct 1, 1995	Two-seat vehicles with two occupants permitted

San Mateo-Hayward, Dumbarton Bridges

OCCUPANCY	Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs) with DMV issued decal.	
HOURS	5:00 - 10:00 AM, 3:00 - 6:00 PM, Monday thru Friday	
TOLL-FREE BOOTH	San Mateo	Left side bypass lane
	Dumbarton	Left side bypass lane
DATES	See information in Mainline HOV Lane section	

TOLL BRIDGE HOV BYPASS LANES

San Francisco-Oakland Bay Bridge

OCCUPANCY	Three or more persons per vehicle, motorcycles, two-seat vehicles with two occupants, inherently low-emissions vehicles (ILEVs) with DMV issued decal.
HOURS	5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday
TOLL-FREE BOOTHS	#1, #2, Lanes 21 & 22
DATES	See information in Ala-80 Mainline HOV Lane section

Carquinez Bridge

OCCUPANCY	Three or more persons per vehicle, motorcycles, two-seat vehicles with two occupants, inherently low-emissions vehicles (ILEVs) with DMV issued decal.
HOURS	5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday
TOLL-FREE BOOTHS	# 6
DATES	See information in Sol-80 Mainline HOV lane section

MAINLINE HOV LANES

VOLUME/PERSON DATA and VIOLATION HISTORY

ALAMEDA-80

San Francisco-Oakland Bay Bridge Toll Plaza

Westbound - A.M.

Typical data for 2003 ⁽⁶⁾

VEHICLES	PEAK PERIOD ⁽⁵⁾ 5:00 - 10:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lanes	Mixed Flow Lanes	HOV Lanes	Mixed Flow Lanes
Motorcycles	674	—	162	—
Buses ⁽⁴⁾	302	—	80	—
Carpools ⁽¹⁾	6689	—	2369	—
2 - seaters ⁽²⁾	2046	—	619	—
Vanpools	209	—	36	—
Violators	883	—	246	—
TOTAL	10803	31060 ⁽⁷⁾	3512	5335

PERSONS	PEAK PERIOD ⁽⁵⁾ 5:00 - 10:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lanes	Mixed Flow Lanes	HOV Lanes	Mixed Flow Lanes
Motorcycles	674	—	162	—
Buses ⁽⁴⁾	10570	—	2800	—
Carpools ⁽¹⁾	20736	—	7344	—
2 - seaters ⁽²⁾	4092	—	1238	—
Vanpools	2090	—	360	—
Violators	1223	—	352	—
TOTAL	39385	35719 ⁽⁷⁾	12256	6135

RATES	PEAK PERIOD ⁽⁵⁾ 5:00 - 10:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane Occupancy Rate	3.6 persons/veh		3.5 persons/veh
Mixed Flow Occupancy Rate ⁽⁷⁾	1.1 persons/veh		1.1 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	8.2 %		7.0 %	

- NOTES:** (1) 3 or more persons per vehicle.
 (2) 2 - seater vehicles with 2 persons.
 (3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
 (4) Assumed AM bus occupancy = 35 persons/vehicle.
 (5) HOV lanes in operation from 5:00 to 10:00 AM.
 (6) Observations conducted 5/28/03 at the SFOBB Toll Plaza.
 (7) Data from Toll Plaza Vehicle Registration Report.

ALAMEDA-80

San Francisco-Oakland Bay Bridge Toll Plaza

Westbound - P.M.

Typical data for 2003 ⁽⁶⁾

VEHICLES	PEAK PERIOD ⁽⁵⁾ 3:00 - 7:00 PM		PEAK HOUR 5:00 - 6:00 P.M.	
	HOV Lanes	Mixed Flow Lanes	HOV Lanes	Mixed Flow Lanes
Motorcycles	278	—	81	—
Buses ⁽⁴⁾	283	—	83	—
Carpools ⁽¹⁾	2168	—	691	—
2 - seaters ⁽²⁾	492	—	142	—
Vanpools	98	—	21	—
Violators	572	—	104	—
TOTAL	3891	26248 ⁽⁷⁾	1122	7149

PERSONS	PEAK PERIOD ⁽⁵⁾ 3:00 - 7:00 PM		PEAK HOUR 5:00 - 6:00 P.M.	
	HOV Lanes	Mixed Flow Lanes	HOV Lanes	Mixed Flow Lanes
Motorcycles	278	—	81	—
Buses ⁽⁴⁾	4528	—	1328	—
Carpools ⁽¹⁾	6721	—	2142	—
2 - seaters ⁽²⁾	984	—	284	—
Vanpools	784	—	168	—
Violators	936	—	174	—
TOTAL	14231	31498 ⁽⁷⁾	4177	8579

RATES	PEAK PERIOD ⁽⁵⁾ 3:00 - 7:00 PM		PEAK HOUR 5:00 - 6:00 P.M.	
	HOV Lanes	Mixed Flow Lanes	HOV Lanes	Mixed Flow Lanes
HOV Lane Occupancy Rate	3.7 persons/veh		3.7 persons/veh	
Mixed Flow Occupancy Rate ⁽⁷⁾	1.1 persons/veh		1.1 persons/veh	
Violation rate (HOV Lane) ⁽³⁾	14.7 %		9.3 %	

- NOTES:** (1) 3 or more persons per vehicle.
 (2) 2 - seater vehicles with 2 persons.
 (3) $\text{Violation rate} = \frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
 (4) Assumed PM bus occupancy = 16 persons/vehicle.
 (5) HOV lanes in operation from 3:00 to 7:00 P.M.
 (6) Observations conducted 5/27/03 at the SFOBB Toll Plaza.
 (7) Data from Toll Plaza Hourly Vehicle Registration Report.

ALAMEDA-80

San Francisco-Oakland Bay Bridge

Violation History

Westbound

	DATE	TOTAL HOVL VOLUME	VIOLATION RATE	By Lane		By Time				
				Lanes 1 & 2	Lanes 21&22	5 - 6 AM	6 - 7 AM	7 - 8 AM	8 - 9 AM	9 - 10 AM
A.M.	Wed May 28, 2003	10803	8.2%	7.4%	9.0%	15.5%	8.4%	7.0%	6.1%	9.6%
PEAK	Thu May 9, 2002	11481	9.5%	4.9%	13.8%	22.4%	12.0%	7.5%	3.8%	10.5%
	Wed May 23, 2001	13100	10.0%	7.2%	12.8%	22.3%	12.2%	5.8%	6.9%	10.4%
	Thu Nov 9, 2000	12991	14.7%	8.9%	19.9%	37.8%	16.9%	10.4%	6.4%	14.3%
	Thu Oct 14, 1999	11644	19.5%	9.8%	29.7%	60.1%	32.6%	7.7%	6.9%	11.5%
	Tue Apr 21, 1998	9696	10.6%	7.6%	12.5%	14.2%	22.7%	6.4%	4.1%	9.2%
	Wed Jun 11, 1997	7655	10.9%	1.0%	12.4%	20.9%	10.6%	8.1%	6.0%	21.5%
	Tue Apr 23, 1996	7258	10.6%	10.9%	9.6%	17.1%	12.5%	8.2%	7.5%	16.9%
	Tue Oct 17, 1995	6985	7.3%	8.1%	5.5%	7.6%	2.6%	8.0%	8.1%	9.7%
							3 - 4 PM	4 - 5 PM	5 - 6 PM	6 - 7 PM
P.M.	Tue May 27, 2003	3891	14.7%	17.2%	11.8%		24.4%	11.7%	9.3%	15.7%
PEAK	Wed Sep 18, 2002	3327	11.7%	12.7%	15.0%		16.5%	11.6%	10.9%	15.8%
	Wed Oct 3, 2001	3602	9.8%	10.6%	8.8%		12.6%	7.6%	9.3%	10.1%
	Thu Oct 19, 2000	3673	25.6%	17.0%	33.3%		32.0%	24.4%	21.1%	25.3%
	Thu Oct 14, 1999	3193	10.6%	12.0%	9.0%		15.6%	10.4%	7.6%	0.097
	Tue Oct 20, 1998	2335	19.1%	15.6%	21.6%		26.6%	24.9%	10.1%	0.17
	Wed Jun 11, 1997	1905	17.0%	19.2%	12.5%		23.0%	14.3%	13.7%	—
	Tue Apr 23, 1996	1737	14.7%	17.2%	7.7%		16.1%	12.5%	15.7%	—
	Tue Oct 17, 1995	1660	15.8%	15.5%	16.4%		18.4%	14.0%	15.3%	—

NOTES: (a) Two-seater vehicles with 2 persons allowed in HOVL effective October 1, 1995.
 (b) Hours of operation were extended from 3-6 PM to 3-7 PM on February 2, 1998.
 (c) Hours of operation from 5:00 to 10:00 AM and 3:00 to 7:00 PM.

ALAMEDA-80

HOV FLYOVER RAMP

Powell Street to SFOBB

Westbound - A.M.

Typical data for 2003 ⁽⁵⁾

PEAK PERIOD ⁽⁴⁾

6:00 - 10:00 AM

PEAK HOUR

7:00 - 8:00 AM

VEHICLES

	HOV Lane	SOV Lane	HOV Lane	SOV Lane
Motorcycles	116	—	11	—
Buses	84	—	17	—
Carpool ⁽¹⁾	2530	—	810	—
2 - seaters ⁽²⁾	896	—	241	—
Vanpools	63	—	18	—
Violators	597	—	181	—
TOTAL	4286	N/A	1278	N/A

PERSONS

	HOV Lane	SOV Lane	HOV Lane	SOV Lane
Motorcycles	116	—	11	—
Buses	2940	—	595	—
Carpool ⁽¹⁾	7843	—	2511	—
2 - seaters ⁽²⁾	1792	—	482	—
Vanpools	630	—	180	—
Violators	1007	—	309	—
TOTAL	14328	N/A	4088	N/A

RATES

HOV Lane occupancy rate	3.3 persons/veh	3.2 persons/veh
Violation rate ⁽³⁾ (HOV Lane)	13.9 %	14.2 %

NOTES: (1) 3 or more persons per vehicle.

(2) 2 - seater vehicles with 2 persons.

(3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 5:00 to 10:00 AM.

(5) Observations conducted 11/5/03 at the downstream touchdown of the flyover

ALAMEDA-80

HOV FLYOVER RAMP

Powell Street to SFOBB

Westbound - P.M.

Typical data for 2003 ⁽⁵⁾

PEAK PERIOD ⁽⁴⁾

3:00 - 6:00 PM

PEAK HOUR

3:00 - 4:00 PM

VEHICLES

	HOV Lane	SOV Lane	HOV Lane	SOV Lane
Motorcycles	37	—	13	—
Buses	75	—	16	—
Carpool ⁽¹⁾	383	—	139	—
2 - seaters ⁽²⁾	107	—	25	—
Vanpools	12	—	5	—
Violators	225	—	89	—
TOTAL	839	N/A	287	N/A

PERSONS

	HOV Lane	SOV Lane	HOV Lane	SOV Lane
Motorcycles	37	—	13	—
Buses	1200	—	256	—
Carpool ⁽¹⁾	1187	—	431	—
2 - seaters ⁽²⁾	214	—	50	—
Vanpools	96	—	40	—
Violators	341	—	137	—
TOTAL	3075	N/A	927	N/A

RATES

HOV Lane occupancy rate	3.7 persons/veh	3.2 persons/veh
Violation rate ⁽³⁾ (HOV Lane)	26.8 %	31.0 %

NOTES: (1) 3 or more persons per vehicle.

(2) 2 - seater vehicles with 2 persons.

(3) $Violation\ rate = \frac{no.\ of\ violators\ in\ HOV\ lane \times 100\%}{Total\ no.\ of\ vehicles\ in\ HOV\ lane}$

(4) HOV lane in operation from 3:00 to 7:00 PM.

(5) Observations conducted 11/4/03 at the downstream touchdown of the flyover.

ALAMEDA-80

HOV FLYOVER RAMP

Powell Street to SFOBB

Violation History

Westbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Wed Nov 5, 2003	6:00 - 10:00 AM	4286	13.9%
	Wed May 29, 2002	6:00 - 10:00 AM	4644	2.9%
	Wed Mar 28, 2001	5:00 - 10:00 AM	5108	18.6%
	Wed May 17, 2000	5:00 - 10:00 AM	5274	16.5%
	Wed Apr 21, 1999	7:00 - 10:00 AM	3900	5.6%
	Tue Oct 20, 1998	5:00 - 10:00 AM	4575	20.4%
P.M. PEAK	Tue Nov 4, 2003	3:00 - 6:00 PM	839	26.8%
	Tue Sep 17, 2002	3:00 - 7:00 PM	1123	20.4%
	Wed Oct 3, 2001	3:00 - 7:00 PM	1045	26.1%
	Tue Dec 12, 2000	3:00 - 5:00 PM	490	16.1%
	Wed Feb 3, 1999	3:00 - 7:00 PM	946	30.7%
	Wed Oct 7, 1998	3:00 - 7:00 PM	1055	22.7%

- NOTES:**
- (a) Morning period of operation from 5:00 to 10:00 AM
 - (b) Evening period of operation from 3:00 to 7:00 PM.

ALAMEDA-80

Contra Costa County Line to Powell Street

Westbound - A.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 6:00 - 10:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	179	44	46	14
Buses	53	27	12	3
Carpools ⁽¹⁾	4616	468	1381	183
Vanpools	103	8	21	5
Single Occ. ⁽²⁾	—	27427	—	7290
Violators	230	—	52	—
TOTAL	5181	27974	1512	7495

PERSONS	PEAK PERIOD ⁽⁴⁾ 6:00 - 10:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	179	44	46	14
Buses	1855	945	420	105
Carpools ⁽¹⁾	13119	1184	3957	468
Vanpools	1030	80	210	50
Single Occ. ⁽²⁾	—	29877	—	7290
Violators	303	—	64	—
TOTAL	16486	32130	4697	7927

RATES	PEAK PERIOD ⁽⁴⁾ 6:00 - 10:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane occupancy rate	3.2 persons/veh		3.1 persons/veh
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.5 persons/veh		1.4 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	4.4 %		3.4 %	

- NOTES:**
- (1) 3 or more persons per vehicle & 2 - seater vehicles with 2 persons.
 - (2) Mixed flow lanes only.
 - (3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
 - (4) HOV lane in operation from 5:00 to 10:00 A.M.
 - (5) Observations conducted 6/10/03 at Ashby Avenue Interchange.

ALAMEDA-80

Powell Street to Contra Costa County Line

Eastbound - P.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 3:00 - 7:00 PM		PEAK HOUR 6:00 - 7:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	211	94	62	14
Buses	85	13	33	3
Carpools ⁽¹⁾	3483	975	1115	212
Vanpools	53	15	10	1
1 and 2 Occ. ⁽²⁾	—	28331	—	7325
Violators	393	—	75	—
TOTAL	4225	29428	1295	7555

PERSONS	PEAK PERIOD ⁽⁴⁾ 3:00 - 7:00 PM		PEAK HOUR 6:00 - 7:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	211	94	62	14
Buses	2975	455	1155	105
Carpools ⁽¹⁾	9510	2589	3118	566
Vanpools	530	150	100	10
1 and 2 Occ. ⁽²⁾	—	28331	—	7325
Violators	645	—	135	—
TOTAL	13871	31619	4570	8020

RATES	PEAK PERIOD ⁽⁴⁾ 3:00 - 7:00 PM		PEAK HOUR 6:00 - 7:00 PM	
	HOV Lane occupancy rate	3.3 persons/veh		3.5 persons/veh
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.4 persons/veh		1.4 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	9.3 %		5.8 %	

NOTES: (1) 3 or more persons per vehicle & 2 - seater vehicles with 2 persons.

(2) Mixed flow lanes only.

(3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 5/29/03 at Ashby Avenue Interchange.

ALAMEDA-80

Contra Costa County Line to Powell Street

Violation History

Westbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Tue Jun 10, 2003	6:00 - 10:00 AM	5181	4.4%
	Wed May 8, 2002	6:00 - 10:00 AM	5414	8.7%
	Wed May 16, 2001	6:00 - 10:00 AM	5289	13.8%
	Thu Oct 5, 2000	7:00 - 10:00 AM	3184	18.5%
	Thu Apr 15, 1999	7:00 - 10:00 AM	3156	11.0%
	Thu Oct 8, 1998	7:00 - 10:00 AM	3019	8.8%
P.M. PEAK	Year 2003	-	-	-
	Thu May 9, 2002	3:00 - 7:00 PM	3102	18.9%
	Thu May 10, 2001	3:00 - 7:00 PM	1936	24.4%
	Thu Jun 1, 2000	3:00 - 7:00 PM	2593	25.9%
	Thu Apr 15, 1999	3:00 - 7:00 PM	2710	21.4%
	Thu Oct 8, 1998	3:00 - 7:00 PM	1943	20.5%

- NOTES:** (a) Morning period of operation from 5:00 to 10:00 AM
(b) Evening period of operation from 3:00 to 7:00 PM.
(c) Data was not collected in 2003 for off-peak directions.

ALAMEDA-80

Powell Street to Contra Costa County Line

Violation History

Eastbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Year 2003	-	-	-
	Wed Jun 5, 2002	6:00 - 10:00 PM	677	17.6%
	Wed May 30, 2001	6:00 - 10:00 PM	606	21.5%
	Tue Dec 19, 2000	7:00 - 10:00 PM	221	7.7%
	Tue Apr 20, 1999	7:00 - 10:00 PM	531	20.9%
	Thu Dec 17, 1998	7:00 - 10:00 PM	311	16.7%
P.M. PEAK	Thu May 29, 2003	3:00 - 7:00 PM	4225	9.3%
	Thu May 16, 2002	3:00 - 7:00 PM	4535	2.7%
	Thu Sep 27, 2001	3:00 - 7:00 PM	4655	6.5%
	Thu Sep 14, 2000	3:00 - 7:00 PM	4415	3.4%
	Wed Oct 20, 1999	3:00 - 7:00 PM	4287	1.3%
	Tue Dec 15, 1998	3:00 - 5:00 PM	1415	7.1%

- NOTES:** (a) Morning period of operation from 5:00 to 10:00 AM
(b) Evening period of operation from 3:00 to 7:00 PM
(c) Data was not collected in 2003 for off-peak direction

ALAMEDA-84

Newark Boulevard to West of Dumbarton Bridge Toll Plaza

Westbound - A.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	107	0	37	0
Buses	21	0	7	0
Carpools ⁽¹⁾	2324	127	986	18
Vanpools	21	1	6	0
Single Occ. ⁽²⁾	—	8885	—	3180
Violators	23	—	7	—
TOTAL	2496	9013	1043	3198

PERSONS	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	107	0	37	0
Buses	735	0	245	0
Carpools ⁽¹⁾	4812	261	2039	37
Vanpools	210	10	60	0
Single Occ. ⁽²⁾	—	8885	—	3180
Violators	23	—	7	—
TOTAL	5887	9156	2388	3217

RATES	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane occupancy rate	2.4 persons/veh		2.3 persons/veh
Mixed Flow occupancy rate	1.0 persons/veh		1.0 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	0.9 %		0.7 %	

NOTES: (1) Two or more persons per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 5:00 to 10:00 A.M.

(5) Observations conducted 06/05/03 at the Dumbarton Bridge Toll Plaza.

ALAMEDA-84

Newark Boulevard to West of Dumbarton Bridge Toll Plaza

Westbound - P.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	7	2	4	0
Buses	15	2	3	0
Carpools ⁽¹⁾	915	242	312	69
Vanpools	47	2	16	0
Single Occ. ⁽²⁾	—	3060	—	1116
Violators	11	—	2	—
TOTAL	995	3308	337	1185

PERSONS	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	7	2	4	0
Buses	525	70	105	0
Carpools ⁽¹⁾	1943	510	667	142
Vanpools	470	20	160	0
Single Occ. ⁽²⁾	—	3060	—	1116
Violators	11	—	2	—
TOTAL	2956	3662	938	1258

RATES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane occupancy rate	3.0 persons/veh		2.8 persons/veh
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.5 persons/veh		1.4 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	1.1 %		0.6 %	

NOTES: (1) Two or more persons per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 3:00 to 6:00 P.M.

(5) Observations conducted 05/08/03 at the Dumbarton Bridge Toll Plaza.

ALAMEDA-84

Newark Boulevard to west of Dumbarton Bridge Toll Plaza

Violation History

Westbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Thu Jun 5, 2003	6:00 - 9:00 AM	2496	0.9%
	Tue May 14, 2002	6:00 - 9:00 AM	3044	3.5%
	Tue Apr 10, 2001	6:00 - 10:00 AM	4480	3.1%
	Thu Oct 19, 2000	6:00 - 9:00 AM	4106	3.5%
	Tue Mar 16, 1999	6:00 - 9:00 AM	3906	5.7%
	Thu Apr 2, 1998	6:00 - 9:00 AM	3601	0.4%
	Tue Apr 29, 1997	6:00 - 9:00 AM	2900	16.9%
	Tue May 14, 1996	6:00 - 10:00 AM	3095	15.0%
	Thu Mar 30, 1995	6:00 - 9:00 AM	2248	13.0%
	Wed Sep 28, 1994	6:15 - 9:00 AM	2207	2.9%
	Thu Jun 3, 1993	6:00 - 9:00 AM	2422	2.4%
P.M. PEAK	Thu May 8, 2003	3:00 - 6:00 PM	995	1.1%
	Wed Jun 12, 2002	3:00 - 6:00 PM	959	1.8%
	Tue Mar 20, 2001	3:00 - 6:00 PM	919	2.2%
	Thu Oct 19, 2000	3:00 - 6:00 PM	849	3.1%
	Wed Sep 22, 1999	3:00 - 6:00 PM	949	2.0%
	Wed Apr 15, 1998	3:00 - 6:00 PM	981	1.6%
	Thu Oct 2, 1997	3:00 - 6:00 PM	819	6.6%
	Tue May 14, 1996	3:00 - 6:00 PM	605	2.8%
	Thu Mar 30, 1995	3:00 - 6:00 PM	709	3.8%
	Tue Sep 27, 1994	3:00 - 6:00 PM	701	7.8%
	Thu May 27, 1993	3:00 - 6:00 PM	604	6.8%

NOTES: (a) Morning period of operation from 5:00 to 10:00 AM.
(b) Evening period of operation from 3:00 to 6:00 PM.

ALAMEDA-92

Hesperian Boulevard to San Mateo Bridge Toll Plaza

Westbound - A.M.

Typical data for 2003 ⁽⁵⁾

PEAK PERIOD ⁽⁴⁾

6:00 - 9:00 AM

PEAK HOUR

7:00 - 8:00 AM

VEHICLES	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	66	12	25	5
Buses	7	1	3	0
Carpools ⁽¹⁾	2251	144	950	46
Vanpools	94	7	42	1
Single Occ. ⁽²⁾	—	9488	—	3243
Violators	31	—	14	—
TOTAL	2449	9652	1034	3295

PERSONS	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	66	12	25	5
Buses	245	35	105	0
Carpools ⁽¹⁾	4709	305	2005	99
Vanpools	940	70	420	10
Single Occ. ⁽²⁾	—	9488	—	3243
Violators	31	—	14	—
TOTAL	5991	9910	2569	3357

RATES	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR	
	HOV Lane occupancy rate	2.4 persons/veh		2.5 persons/veh
Mixed Flow occupancy rate	1.0 persons/veh		1.0 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.4 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	1.3 %		1.4 %	

NOTES: (1) Two or more persons per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 5:00 to 10:00 A.M.

(5) Observations conducted 05/29/03 at the San Mateo Bridge Toll Plaza.

ALAMEDA-92

Hesperian Boulevard to San Mateo Bridge Toll Plaza

Westbound - P.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	32	15	13	9
Buses	12	4	6	1
Carpools ⁽¹⁾	1137	473	444	176
Vanpools	41	2	16	0
Single Occ. ⁽²⁾	—	6172	—	2311
Violators	18	—	5	—
TOTAL	1240	6666	484	2497

PERSONS	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	32	15	13	9
Buses	420	140	210	35
Carpools ⁽¹⁾	2377	1000	930	363
Vanpools	410	20	160	0
Single Occ. ⁽²⁾	—	6172	—	2311
Violators	18	—	5	—
TOTAL	3257	7347	1318	2718

RATES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane occupancy rate	2.6 persons/veh		2.7 persons/veh
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.4 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	1.5 %		1.0 %	

NOTES: (1) Two or more persons per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 3:00 to 6:00 P.M.

(5) Observations conducted 04/09/03 at the San Mateo Bridge Toll Plaza.

ALAMEDA-92

Violation History

Hesperian Blvd. to West of San Mateo - Hayward Bridge Toll Plaza

Westbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Thu May 29, 2003	6:00 - 9:00 AM	2449	1.3%
	Tue Apr 30, 2002	6:00 - 9:00 AM	1834	3.9%
	Thu Sep 20, 2001	6:00 - 9:00 AM	2075	8.1%
	Tue Oct 24, 2000	6:00 - 9:00 AM	2480	8.2%
	Wed Mar 17, 1999	6:00 - 9:00 AM	2534	9.4%
	Tue Mar 17, 1998	6:00 - 9:00 AM	2255	8.2%
	Tue Oct 7, 1997	6:00 - 9:00 AM	2111	14.9%
	Tue Apr 30, 1996	6:00 - 10:00 AM	1899	11.2%
	Tue Apr 4, 1995	6:00 - 9:00 AM	1344	21.1%
	Wed Oct 5, 1994	7:00 - 9:00 AM	982	9.1%
	Wed Jun 2, 1993	6:00 - 9:00 AM	1570	3.0%
P.M. PEAK	Wed Apr 9, 2003	3:00 - 6:00 PM	1240	1.5%
	Tue Jun 11, 2002	3:00 - 6:00 PM	1275	4.4%
	Wed Oct 3, 2001	3:00 - 6:00 PM	1177	5.4%
	Thu Apr 13, 2000	3:00 - 6:00 PM	1243	1.4%
	Thu Mar 4, 1999	3:00 - 6:00 PM	1128	3.2%
	Thu Mar 26, 1998	3:00 - 6:00 PM	1210	3.8%
	Wed Oct 8, 1997	3:00 - 6:00 PM	1138	6.8%
	Tue Apr 30, 1996	3:00 - 6:00 PM	973	7.9%
	Tue Apr 4, 1995	3:00 - 6:00 PM	944	10.3%
	Wed Oct 5, 1994	3:00 - 6:00 PM	1003	14.1%
	Wed Apr 28, 1993	3:00 - 6:00 PM	1020	8.0%

NOTES: (a) Morning period of operation from 5:00 to 10:00 AM.

(b) Evening period of operation from 3:00 to 6:00 PM.

ALAMEDA-680

Route 84 to Route 237 Calaveras Blvd.

Southbound - A.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 8:00 - 9:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	114	8	47	3
Buses	1	2	1	1
Carpools ⁽¹⁾	1982	374	501	242
Vanpools	36	2	21	0
Single Occ. ⁽²⁾	—	14727	—	5316
Violators	5	—	5	—
TOTAL	2138	15113	575	5562

PERSONS	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 8:00 - 9:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	114	8	47	3
Buses	35	70	35	35
Carpools ⁽¹⁾	4012	783	1016	498
Vanpools	360	20	210	0
Single Occ. ⁽²⁾	—	14727	—	5316
Violators	5	—	5	—
TOTAL	4526	15608	1313	5852

RATES	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 8:00 - 9:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.1 persons/veh		2.3 persons/veh	
Mixed Flow occupancy rate	1.0 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	0.2 %		0.9 %	

NOTES: (1) Two or more persons per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 5:00 to 9:00 A.M.

(5) Observations conducted 10/09/03 at Vargas Rd. I/C.

ALAMEDA-680

Route 84 to Route 237 Calaveras Blvd.

Southbound - P.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	27	29	7	7
Buses	2	5	2	4
Carpools ⁽¹⁾	1057	1030	337	392
Vanpools	12	23	0	15
Single Occ. ⁽²⁾	—	10261	—	3567
Violators	51	—	20	—
TOTAL	1149	11348	366	3985

PERSONS	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	27	29	7	7
Buses	70	175	70	140
Carpools ⁽¹⁾	2227	2212	714	836
Vanpools	120	230	0	150
Single Occ. ⁽²⁾	—	10261	—	3567
Violators	51	—	20	—
TOTAL	2495	12907	811	4700

RATES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane occupancy rate	2.2 persons/veh		2.2 persons/veh
Mixed Flow occupancy rate	1.1 persons/veh		1.2 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.3 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	4.4 %		5.5 %	

NOTES: (1) Two or more persons per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 06/03/03 at Vargas Rd. I/C.

ALAMEDA - 680

Route 84 to Route 237 Calaveras Blvd.

Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Thu Oct 9, 2003	6:00 - 9:00 AM	2138	0.2%
	Thu Dec 5, 2002	6:00 - 9:00 AM	1098	4.4%
P.M. PEAK	Tue Jun 3, 2003	3:00 - 6:00 PM	1149	4.4%

NOTES: (a) Morning period of operation from 5:00 to 9:00 AM.
(b) Evening period of operation from 3:00 to 7:00 PM.

ALAMEDA-880

Marina Boulevard to Whipple Road

Southbound - A.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	82	8	39	4
Buses	23	22	12	2
Carpools ⁽¹⁾	2764	339	1064	193
Vanpools	67	7	20	0
Single Occ. ⁽²⁾	—	12517	—	4143
Violators	113	—	34	—
TOTAL	3049	12893	1169	4342

PERSONS	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	82	8	39	4
Buses	805	770	420	70
Carpools ⁽¹⁾	5683	693	2202	392
Vanpools	670	70	200	0
Single Occ. ⁽²⁾	—	12517	—	4143
Violators	113	—	34	—
TOTAL	7353	14058	2895	4609

RATES	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane occupancy rate	2.4 persons/veh		2.5 persons/veh
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.4 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	3.7 %		2.9 %	

- NOTES:** (1) Two or more persons per vehicle.
 (2) Mixed flow lanes only.
 (3) $\text{Violation rate} = \frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
 (4) HOV lane in operation from 5:00 to 9:00 A.M.
 (5) Observations conducted 10/07/03 at Tennyson Road I/C.

ALAMEDA-880

Marina Boulevard to Whipple Road

Southbound - P.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	86	17	24	1
Buses	11	16	5	5
Carpools ⁽¹⁾	3255	766	1149	242
Vanpools	135	0	43	0
Single Occ. ⁽²⁾	—	13343	—	4557
Violators	221	—	68	—
TOTAL	3708	14142	1289	4805

PERSONS	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	86	17	24	1
Buses	385	560	175	175
Carpools ⁽¹⁾	6805	1609	2405	507
Vanpools	1350	0	430	0
Single Occ. ⁽²⁾	—	13343	—	4557
Violators	221	—	68	—
TOTAL	8847	15529	3102	5240

RATES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.4 persons/veh		2.4 persons/veh	
Mixed Flow occupancy rate		1.1 persons/veh		1.1 persons/veh
Overall occupancy (incl. buses)	1.4 persons/veh		1.4 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	6.0 %		5.3 %	

- NOTES:** (1) Two or more persons per vehicle.
 (2) Mixed flow lanes only.
 (3) $\text{Violation rate} = \frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
 (4) HOV lane in operation from 3:00 to 7:00 P.M.
 (5) Observations conducted 06/04/03 at Tennyson Road I/C.

ALAMEDA-880

Whipple Road to South of Route 238

Northbound - A.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	74	3	32	1
Buses	36	9	17	4
Carpools ⁽¹⁾	2687	1064	1127	331
Vanpools	81	3	26	1
Single Occ. ⁽²⁾	—	9590	—	3326
Violators	42	—	13	—
TOTAL	2920	10669	1215	3663

PERSONS	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	74	3	32	1
Buses	1260	315	595	140
Carpools ⁽¹⁾	5603	2273	2363	721
Vanpools	810	30	260	10
Single Occ. ⁽²⁾	—	9590	—	3326
Violators	42	—	13	—
TOTAL	7789	12211	3263	4198

RATES	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane occupancy rate	2.7 persons/veh		2.7 persons/veh
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.5 persons/veh		1.5 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	1.4 %		1.1 %	

NOTES: (1) Two or more persons per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 5:00 to 9:00 A.M.

(5) Observations conducted 05/22/03 at Tennyson Road I/C.

ALAMEDA-880

Whipple Road to South of Route 238

Northbound - P.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	94	9	40	1
Buses	27	12	13	1
Carpools ⁽¹⁾	3416	592	1175	172
Vanpools	12	19	4	1
Single Occ. ⁽²⁾	—	13372	—	4754
Violators	108	—	22	—
TOTAL	3657	14004	1254	4929

PERSONS	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	94	9	40	1
Buses	945	420	455	35
Carpools ⁽¹⁾	7280	1245	2483	362
Vanpools	120	190	40	10
Single Occ. ⁽²⁾	—	13372	—	4754
Violators	108	—	22	—
TOTAL	8547	15236	3040	5162

RATES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane occupancy rate	2.3 persons/veh		2.4 persons/veh
Mixed Flow occupancy rate	1.1 persons/veh		1.0 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	3.0 %		1.8 %	

- NOTES:** (1) Two or more persons per vehicle.
(2) Mixed flow lanes only.
(3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
(4) HOV lane in operation from 3:00 to 7:00 P.M.
(5) Observations conducted 10/09/03 at Tennyson Road I/C.

ALAMEDA-880

Marina Boulevard to Whipple Road

Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Tue Oct 7, 2003	6:00 - 9:00 AM	3049	3.7%
	Tue Jun 11, 2002	6:00 - 9:00 AM	3638	7.5%
	Wed Mar 21, 2001	6:00 - 9:00 AM	3971	5.2%
	Tue May 9, 2000	6:00 - 9:00 AM	3661	4.6%
	Thu Mar 4, 1999	6:00 - 9:00 AM	3012	5.7%
	Tue Oct 27, 1998	6:00 - 9:00 AM	2958	10.1%
	Thu May 8, 1997	6:00 - 9:00 AM	2257	16.0%
	Tue May 21, 1996	6:00 - 9:00 AM	1926	13.7%
	Wed Mar 29, 1995	6:00 - 9:00 AM	1088	2.8%
	Wed May 25, 1994	6:00 -10:00 AM	1354	7.9%
	Tue Apr 27, 1993	6:00 -10:00 AM	1340	18.6%
P.M. PEAK	Wed Jun 4, 2003	3:00 - 6:00 PM	3708	6.0%
	Wed Jun 5, 2002	3:00 - 6:00 PM	3401	5.2%
	Thu Apr 26, 2001	3:00 - 6:00 PM	3134	3.9%
	Tue May 9, 2000	3:00 - 6:00 PM	2484	5.6%
	Tue Mar 2, 1999	3:00 - 6:00 PM	2307	4.3%
	Tue Oct 27, 1998	3:00 - 6:00 PM	2218	6.0%
	Wed May 7, 1997	3:00 - 7:00 PM	2665	8.0%
	Tue May 7, 1996	3:00 - 7:00 PM	2609	4.2%
	Wed Apr 5, 1995	3:00 - 7:00 PM	3238	3.1%
	Wed May 25, 1994	3:00 - 6:00 PM	2507	5.4%
	Tue Apr 27, 1993	3:00 - 6:00 PM	1850	19.1%

NOTES: (a) Morning period of operation from 5:00 to 9:00 AM.

(b) Evening period of operation from 3:00 to 7:00 PM.

ALAMEDA-880

Whipple Road to South of Route 238

Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Thu May 22, 2003	6:00 - 9:00 AM	2920	1.4%
	Thu Sep 12, 2002	6:00 - 9:00 AM	2560	8.8%
	Thu Oct 11, 2001	6:00 - 9:00 AM	2212	5.2%
	Tue Nov 7, 2000	6:00 - 9:00 AM	1648	7.6%
	Tue Nov 2, 1999	6:00 - 9:00 AM	1845	8.1%
	Wed Oct 28, 1998	6:00 - 9:00 AM	1582	17.2%
	Wed Oct 8, 1997	6:00 - 9:00 AM	1147	12.7%
	Tue Nov 5, 1996	6:00 - 9:00 AM	2291	8.1%
	Wed Mar 29, 1995	6:00 - 9:00 AM	1158	17.8%
	Wed May 25, 1994	6:00-10:00 AM	2033	9.7%
	Thu Apr 29, 1993	6:00-10:00 AM	1945	6.5%
P.M. PEAK	Thu Oct 9, 2003	3:00 - 6:00 PM	3657	3.0%
	Wed May 8, 2002	3:00 - 6:00 PM	3878	8.4%
	Wed May 2, 2001	3:00 - 6:00 PM	4069	4.8%
	Thu Oct 5, 2000	3:00 - 6:00 PM	4433	6.4%
	Tue Nov 2, 1999	3:00 - 6:00 PM	2238	26.5%
	Wed Oct 28, 1998	3:00 - 6:00 PM	2515	8.3%
	Tue May 6, 1997	3:00 - 7:00 PM	3788	11.1%
	Thu Oct 10, 1996	3:00 - 7:00 PM	4098	6.0%
	Wed Mar 29, 1995	3:00 - 7:00 PM	3869	11.0%
	Wed May 25, 1994	3:00 - 6:00 PM	2249	5.4%
	Thu Apr 22, 1993	3:00 - 6:00 PM	1849	6.5%

NOTES: (a) Morning period of operation from 5:00 to 9:00 AM.

(b) Evening period of operation from 3:00 to 7:00 PM.

ALAMEDA-880

Whipple Road to Mission Boulevard

Southbound - A.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	84	26	33	13
Buses	19	27	9	6
Carpools ⁽¹⁾	2159	524	751	183
Vanpools	71	1	24	0
Single Occ. ⁽²⁾	—	13167	—	4788
Violators	85	—	27	—
TOTAL	2418	13745	844	4990

PERSONS	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	84	26	33	13
Buses	665	945	315	210
Carpools ⁽¹⁾	4465	1125	1548	386
Vanpools	710	10	240	0
Single Occ. ⁽²⁾	—	13167	—	4788
Violators	85	—	27	—
TOTAL	6009	15273	2163	5397

RATES	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane occupancy rate	2.5 persons/veh		2.6 persons/veh
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	3.5 %		3.2 %	

- NOTES:** (1) Two or more persons per vehicle.
 (2) Mixed flow lanes only.
 (3) $\text{Violation rate} = \frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
 (4) HOV lane in operation from 5:00 to 9:00 A.M.
 (5) Observations conducted 06/03/03 at Mowry I/C.

ALAMEDA-880

Whipple Road to Mission Boulevard

Southbound - P.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	51	14	16	6
Buses	5	7	3	1
Carpools ⁽¹⁾	2044	851	682	228
Vanpools	34	23	9	7
Single Occ. ⁽²⁾	—	14460	—	4950
Violators	93	—	21	—
TOTAL	2227	15355	731	5192

PERSONS	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	51	14	16	6
Buses	175	245	105	35
Carpools ⁽¹⁾	4264	1837	1426	496
Vanpools	340	230	90	70
Single Occ. ⁽²⁾	—	14460	—	4950
Violators	93	—	21	—
TOTAL	4923	16786	1658	5557

RATES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane occupancy rate	2.2 persons/veh		2.3 persons/veh
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	4.2 %		2.9 %	

- NOTES:** (1) Two or more persons per vehicle.
 (2) Mixed flow lanes only.
 (3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
 (4) HOV lane in operation from 3:00 to 7:00 P.M.
 (5) Observations conducted 05/07/03 at Mowry I/C.

ALAMEDA-880

Mission Boulevard to Whipple Road

Northbound - A.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	36	15	8	9
Buses	8	23	4	6
Carpools ⁽¹⁾	1328	609	385	373
Vanpools	6	13	4	5
Single Occ. ⁽²⁾	—	11626	—	4162
Violators	35	—	1	—
TOTAL	1413	12286	402	4555

PERSONS	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	36	15	8	9
Buses	280	805	140	210
Carpools ⁽¹⁾	2725	1292	805	780
Vanpools	60	130	40	50
Single Occ. ⁽²⁾	—	11626	—	4162
Violators	35	—	1	—
TOTAL	3136	13868	994	5211

RATES	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane occupancy rate	2.2 persons/veh		2.5 persons/veh
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.3 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	2.5 %		0.2 %	

- NOTES:** (1) Two or more persons per vehicle.
 (2) Mixed flow lanes only.
 (3) $\text{Violation rate} = \frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
 (4) HOV lane in operation from 5:00 to 9:00 A.M.
 (5) Observations conducted 10/15/03 at Mowry I/C.

ALAMEDA-880

Mission Boulevard to Whipple Road

Northbound - P.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	76	9	35	0
Buses	11	27	4	3
Carpools ⁽¹⁾	2198	718	834	199
Vanpools	7	41	5	11
Single Occ. ⁽²⁾	—	13014	—	4452
Violators	74	—	12	—
TOTAL	2366	13809	890	4665

PERSONS	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	76	9	35	0
Buses	385	945	140	105
Carpools ⁽¹⁾	4791	1585	1814	441
Vanpools	70	410	50	110
Single Occ. ⁽²⁾	—	13014	—	4452
Violators	74	—	12	—
TOTAL	5396	15963	2051	5108

RATES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane occupancy rate	2.3 persons/veh		2.3 persons/veh
Mixed Flow occupancy rate	1.2 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	3.1 %		1.3 %	

- NOTES:** (1) Two or more persons per vehicle.
(2) Mixed flow lanes only.
(3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
(4) HOV lane in operation from 3:00 to 7:00 P.M.
(5) Observations conducted 10/15/03 at Mowry I/C.

ALAMEDA-880

Whipple Road to Mission Boulevard

Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Tue Jun 3, 2003	6:00 - 9:00 AM	2418	3.5%
	Tue Sep 24, 2002	6:00 - 9:00 AM	2525	3.2%
	Tue Mar 27, 2001	6:00 - 9:00 AM	3423	4.8%
	Tue Mar 28, 2000	6:00 - 9:00 AM	2438	6.2%
	Wed May 19, 1999	6:00 - 9:00 AM	2118	3.7%
P.M. PEAK	Wed May 7, 2003	3:00 - 6:00 PM	2227	4.2%
	Tue May 7, 2002	3:00 - 6:00 PM	2114	5.8%
	Wed Oct 17, 2001	3:00 - 6:00 PM	2157	3.8%
	Thu Nov 9, 2000	3:00 - 6:00 PM	2060	5.9%
	Tue Mar 9, 1999	3:00 - 6:00 PM	1966	20.7%

NOTES: (a) Morning period of operation from 5:00 to 9:00 AM.
(b) Evening period of operation from 3:00 to 7:00 PM.

ALAMEDA-880

Mission Boulevard to Whipple Road

Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Wed Oct 15, 2003	6:00 - 9:00 AM	1413	2.5%
	Tue Apr 16, 2002	6:00 - 9:00 AM	925	2.9%
	Thu Nov 1, 2001	6:00 - 9:00 AM	856	9.7%
	Wed Mar 29, 2000	6:00 - 9:00 AM	956	5.6%
	Wed Mar 10, 1999	6:00 - 9:00 AM	833	13.2%
P.M. PEAK	Wed Oct 15, 2003	3:00 - 6:00 PM	2366	3.1%
	Wed May 15, 2002	3:00 - 6:00 PM	2663	6.0%
	Thu Jun 7, 2001	3:00 - 6:00 PM	2755	3.9%
	Wed Nov 1, 2000	3:00 - 6:00 PM	3263	3.6%
	Thu Mar 18, 1999	3:00 - 6:00 PM	2657	4.6%

NOTES: (a) Morning period of operation from 5:00 to 9:00 AM.
(b) Evening period of operation from 3:00 to 7:00 PM.

ALAMEDA-880

16th Street to SFOBB Toll Plaza

Northbound - A.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 5:00 - 10:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	65	0	23	1
Buses	31	25	17	7
Carpools ⁽¹⁾	1265	238	554	3
Vanpools	9	0	7	0
1 and 2 Occ. ⁽²⁾	—	4825	—	1293
Violators	81	—	29	—
TOTAL	1451	5088	630	1304

PERSONS	PEAK PERIOD ⁽⁴⁾ 5:00 - 10:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	65	0	34	2
Buses	1085	875	595	245
Carpools ⁽¹⁾	3576	738	1579	6
Vanpools	90	0	70	0
1 and 2 Occ. ⁽²⁾	—	5564	—	1519
Violators	91	—	37	—
TOTAL	4907	7177	2315	1772

RATES	PEAK PERIOD ⁽⁴⁾ 5:00 - 10:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane occupancy rate	3.4 persons/veh		3.7 persons/veh
Mixed Flow occupancy rate	1.4 persons/veh		1.4 persons/veh	
Overall occupancy (incl. buses)	1.8 persons/veh		2.1 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	5.6 %		4.6 %	

- NOTES:** (1) 3 or more persons per vehicle & 2 - seater vehicles with 2 persons.
 (2) Mixed flow lanes only.
 (3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
 (4) HOV lane in operation from 5:00 to 10:00 A.M.
 (5) Observations conducted 5/21/03 north of 7th Street Interchange.

ALAMEDA-880

16th Street to SFOBB Toll Plaza

Northbound - P.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 3:00 - 7:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	41	20	15	10
Buses	3	41	2	6
Carpools ⁽¹⁾	387	223	99	46
Vanpools	10	11	3	6
1 and 2 Occ. ⁽²⁾	—	4877	—	1301
Violators	16	—	6	—
TOTAL	457	5172	125	1369

PERSONS	PEAK PERIOD ⁽⁴⁾ 3:00 - 7:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	41	20	15	10
Buses	48	656	32	96
Carpools ⁽¹⁾	1130	580	287	112
Vanpools	80	88	24	48
1 and 2 Occ. ⁽²⁾	—	5576	—	1456
Violators	27	—	10	—
TOTAL	1326	6920	368	1722

RATES	PEAK PERIOD ⁽⁴⁾ 3:00 - 7:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane occupancy rate	2.9 persons/veh		2.9 persons/veh
Mixed Flow occupancy rate	1.3 persons/veh		1.3 persons/veh	
Overall occupancy (incl. buses)	1.5 persons/veh		1.4 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	3.5 %		4.8 %	

NOTES: (1) 3 or more persons per vehicle & 2 - seater vehicles with 2 persons.

(2) Mixed flow lanes only.

(3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 5/20/03 north of 7th Street Interchange.

ALAMEDA-880

16th Street to SFOBB Toll Plaza

Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Wed May 21, 2003	5:00 - 10:00 AM	1451	5.6%
	Wed Apr 17, 2002	6:00 - 10:00 AM	1613	4.8%
	Thu Mar 22, 2001	6:00 - 10:00 AM	2402	15.5%
	Wed Sep 27, 2000	7:00 - 10:00 AM	2983	16.4%
	Tue May 18, 1999	6:00 - 10:00 AM	3471	3.1%
	Thu Sep 10, 1998	6:00 - 10:00 AM	1937	11.7%
P.M. PEAK	Tue May 20, 2003	3:00 - 7:00 PM	457	3.5%
	Wed Apr 17, 2002	3:00 - 7:00 PM	486	6.8%
	Thu Oct 11, 2001	3:00 - 7:00 PM	397	14.6%
	Wed Oct 18, 2000	3:00 - 7:00 PM	513	43.3%
	Thu Sep 30, 1999	3:00 - 7:00 PM	587	16.5%
	Thu Sep 10, 1998	3:00 - 7:00 PM	343	14.9%

NOTES: (a) Morning period of operation from 5:00 to 10:00 AM
(b) Evening period of operation from 3:00 to 7:00 PM.

CONTRA COSTA-4

West of Railroad Ave. to Port Chicago Highway

Westbound - A.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	104	18	44	2
Buses	2	25	1	8
Carpools ⁽¹⁾	2387	589	973	288
Vanpools	68	1	34	0
Single Occ. ⁽²⁾	—	11196	—	3668
Violators	96	—	48	—
TOTAL	2657	11829	1100	3966

PERSONS	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	104	18	44	2
Buses	70	875	35	280
Carpools ⁽¹⁾	4892	1281	2012	627
Vanpools	680	10	340	0
Single Occ. ⁽²⁾	—	11196	—	3668
Violators	96	—	48	—
TOTAL	5842	13380	2479	4577

RATES	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane occupancy rate	2.2 persons/veh		2.3 persons/veh
Mixed Flow occupancy rate	1.1 persons/veh		1.2 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.4 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	3.6 %		4.4 %	

- NOTES:** (1) Two or more persons per vehicle.
(2) Mixed flow lanes only.
(3) $\text{Violation rate} = \frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
(4) HOV lane in operation from 6:00 to 9:00 A.M.
(5) Observations conducted 10/16/03 at Bailey Road I/C.

CONTRA COSTA-4

Port Chicago Highway to West of Railroad Ave.

Eastbound - P.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	113	26	49	14
Buses	1	10	0	0
Carpools ⁽¹⁾	2112	766	710	244
Vanpools	22	9	6	3
Single Occ. ⁽²⁾	—	6922	—	2507
Violators	44	—	6	—
TOTAL	2292	7733	771	2768

PERSONS	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	113	26	49	14
Buses	35	350	0	0
Carpools ⁽¹⁾	4421	1671	1488	520
Vanpools	220	90	60	30
Single Occ. ⁽²⁾	—	6922	—	2507
Violators	44	—	6	—
TOTAL	4833	9059	1603	3071

RATES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane occupancy rate	2.1 persons/veh		2.1 persons/veh
Mixed Flow occupancy rate	1.2 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.4 persons/veh		1.3 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	1.9 %		0.8 %	

NOTES: (1) Two or more persons per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 05/14/03 at Bailey Road I/C.

CONTRA COSTA-4

West of Railroad Ave. to Port Chicago Highway

Violation History

Westbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Thu Oct 16, 2003	6:00 - 9:00 AM	2657	3.6%
	Thu May 23, 2002	6:00 - 9:00 AM	2225	4.5%
	Wed Sep 19, 2001	6:00 - 9:00 AM	1174	7.0%
	Wed May 10, 2000	6:00 - 9:00 AM	861	5.6%

NOTES: (a) Morning period of operation from 6:00 to 9:00 AM.

CONTRA COSTA-4

Port Chicago Highway to West of Railroad Ave.

Violation History

Eastbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
P.M. PEAK	Wed May 14, 2003	3:00 - 6:00 PM	2292	1.9%
	Tue Mar 19, 2002	3:00 - 6:00 PM	2248	4.4%
	Tue Oct 30, 2001	3:00 - 6:00 PM	2011	4.0%

NOTES: (a) Evening period of operation from 3:00 to 7:00 PM.

CONTRA COSTA-80

Route 4 to Alameda County Line

Westbound - A.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 6:00 - 10:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	150	23	34	0
Buses	98	25	30	1
Carpools ⁽¹⁾	2957	351	984	79
Vanpools	77	1	8	0
1 and 2 Occ. ⁽²⁾	—	17370	—	4162
Violators	1227	—	458	—
TOTAL	4509	17770	1514	4242

PERSONS	PEAK PERIOD ⁽⁴⁾ 6:00 - 10:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	150	23	34	0
Buses	3430	875	1050	35
Carpools ⁽¹⁾	8150	915	2673	222
Vanpools	770	10	80	0
1 and 2 Occ. ⁽²⁾	—	19037	—	4570
Violators	1847	—	718	—
TOTAL	14347	20860	4555	4827

RATES	PEAK PERIOD ⁽⁴⁾ 6:00 - 10:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane occupancy rate	3.2 persons/veh		3.0 persons/veh
Mixed Flow occupancy rate	1.2 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.6 persons/veh		1.6 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	27.2 %		30.3 %	

- NOTES:** (1) 3 or more persons per vehicle & 2 - seater vehicles with 2 persons.
 (2) Mixed flow lanes only.
 (3) $\text{Violation rate} = \frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
 (4) HOV lane in operation from 5:00 to 10:00 A.M.
 (5) Observations conducted 5/9/03 east of Hilltop Drive Interchange.

CONTRA COSTA-80

Alameda County Line to Route 4

Eastbound - P.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 3:00 - 7:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	174	39	50	8
Buses	81	25	19	8
Carpools ⁽¹⁾	3372	1896	881	333
Vanpools	141	8	55	3
1 and 2 Occ. ⁽²⁾	—	20620	—	5459
Violators	488	—	113	—
TOTAL	4256	22588	1118	5811

PERSONS	PEAK PERIOD ⁽⁴⁾ 3:00 - 7:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	174	39	50	8
Buses	2835	875	665	280
Carpools ⁽¹⁾	9603	4459	2467	804
Vanpools	1410	80	550	30
1 and 2 Occ. ⁽²⁾	—	23156	—	6063
Violators	598	—	136	—
TOTAL	14620	28609	3868	7185

RATES	PEAK PERIOD ⁽⁴⁾ 3:00 - 7:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	3.4 persons/veh		3.5 persons/veh	
Mixed Flow occupancy rate		1.3 persons/veh		1.2 persons/veh
Overall occupancy (incl. buses)	1.6 persons/veh		1.6 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	11.5 %		10.1 %	

NOTES: (1) 3 or more persons per vehicle & 2 - seater vehicles with 2 persons.

(2) Mixed flow lanes only.

(3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 5/28/03 east of Hilltop Drive Interchange.

CONTRA COSTA-80

Route 4 to Alameda County Line

Violation History

Westbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Fri May 9, 2003	6:00 - 10:00 AM	4509	27.2%
	Tue Apr 16, 2002	7:00 - 10:00 AM	2656	6.4%
	Tue Mar 27, 2001	6:00 - 10:00 AM	3640	8.7%
	Tue Oct 3, 2000	7:00 - 10:00 AM	2643	9.5%
	Tue Nov 9, 1999	7:00 - 10:00 AM	2186	11.1%
	Tue Oct 6, 1998	7:00 - 10:00 AM	1743	10.0%
	Thu Oct 30, 1997	6:00 - 10:00 AM	1483	32.6%
P.M. PEAK	Year 2003	-	-	-
	Tue May 7, 2002	3:00 - 7:00 PM	1401	25.7%
	Thu Oct 4, 2001	3:00 - 7:00 PM	1432	24.2%
	Thu Apr 13, 2000	3:00 - 7:00 PM	1167	37.3%
	Wed Apr 21, 1999	3:00 - 7:00 PM	1068	18.5%
	Tue Oct 6, 1998	3:00 - 7:00 PM	802	31.9%

- NOTES:** (a) Morning period of operation from 5:00 to 10:00 AM.
(b) Evening period of operation from 3:00 to 7:00 PM.
(c) Data was not collected in 2003 for off-peak direction

CONTRA COSTA-80

Alameda County Line to Route 4

Violation History

Eastbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Year 2003	-	-	-
	Tue Apr 23, 2002	6:00 - 10:00 AM	632	19.8%
	Tue May 15, 2001	6:00 - 10:00 AM	553	18.3%
	Thu Dec 14, 2000	7:00 - 10:00 AM	483	26.3%
	Wed Apr 7, 1999	7:00 - 10:00 AM	498	26.9%
	Thu Oct 1, 1998	6:00 - 10:00 AM	386	43.0%
P.M. PEAK	Wed May 28, 2003	3:00 - 7:00 PM	4256	11.5%
	Tue Apr 16, 2002	3:00 - 7:00 PM	3921	9.0%
	Thu Sep 20, 2001	3:00 - 7:00 PM	4649	4.4%
	Tue Sep 26, 2000	3:00 - 7:00 PM	3780	18.0%
	Tue Apr 13, 1999	3:00 - 7:00 PM	2956	9.5%
	Thu Oct 22, 1998	3:00 - 6:00 PM	2422	17.8%
	Tue Apr 8, 1997	3:00 - 7:00 PM	1680	18.5%

- NOTES:** (a) Morning period of operation from 5:00 to 10:00 AM.
(b) Evening period of operation from 3:00 to 7:00 PM.
(c) Data was not collected in 2003 off-peak direction

CONTRA COSTA-680

Livorna Road to Alcosta Boulevard

Southbound - A.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	32	0	9	0
Buses	16	19	9	6
Carpools ⁽¹⁾	1973	299	777	59
Vanpools	80	18	26	4
Single Occ. ⁽²⁾	—	13926	—	4957
Violators	13	—	3	—
TOTAL	2114	14262	824	5026

PERSONS	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	32	0	9	0
Buses	560	665	315	210
Carpools ⁽¹⁾	4033	634	1583	131
Vanpools	800	180	260	40
Single Occ. ⁽²⁾	—	13926	—	4957
Violators	13	—	3	—
TOTAL	5438	15405	2170	5338

RATES	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane occupancy rate	2.6 persons/veh		2.6 persons/veh
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	0.6 %		0.4 %	

- NOTES:** (1) Two or more persons per vehicle.
 (2) Mixed flow lanes only.
 (3) $\text{Violation rate} = \frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
 (4) HOV lane in operation from 6:00 to 9:00 A.M.
 (5) Observations conducted 04/03/03 at Stone Valley Road.

CONTRA COSTA-680

Livorna Road to Alcosta Boulevard

Southbound - P.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	43	8	12	2
Buses	0	30	0	9
Carpools ⁽¹⁾	2008	1165	816	230
Vanpools	8	23	5	4
Single Occ. ⁽²⁾	—	13611	—	4912
Violators	50	—	37	—
TOTAL	2109	14837	870	5157

PERSONS	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	43	8	12	2
Buses	0	1050	0	315
Carpools ⁽¹⁾	4246	2546	1738	490
Vanpools	80	230	50	40
Single Occ. ⁽²⁾	—	13611	—	4912
Violators	50	—	37	—
TOTAL	4419	17445	1837	5759

RATES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane occupancy rate	2.1 persons/veh		2.1 persons/veh
Mixed Flow occupancy rate	1.2 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	2.4 %		4.3 %	

- NOTES:** (1) Two or more persons per vehicle.
 (2) Mixed flow lanes only.
 (3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
 (4) HOV lane in operation from 3:00 to 6:00 P.M.
 (5) Observations conducted 04/08/03 at Stone Valley Road.

CONTRA COSTA-680

Alcosta Boulevard to Livorna Road

Northbound - A.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 8:00 - 9:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	46	11	12	0
Buses	19	8	14	1
Carpools ⁽¹⁾	1753	199	779	84
Vanpools	6	1	3	0
Single Occ. ⁽²⁾	—	13051	—	5160
Violators	96	—	60	—
TOTAL	1920	13270	868	5245

PERSONS	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 8:00 - 9:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	46	11	12	0
Buses	665	280	490	35
Carpools ⁽¹⁾	3776	432	1702	178
Vanpools	60	10	30	0
Single Occ. ⁽²⁾	—	13051	—	5160
Violators	96	—	60	—
TOTAL	4643	13784	2294	5373

RATES	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 8:00 - 9:00 AM	
	HOV Lane occupancy rate	2.4 persons/veh		2.6 persons/veh
Mixed Flow occupancy rate	1.0 persons/veh		1.0 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.3 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	5.0 %		6.9 %	

- NOTES:** (1) Two or more persons per vehicle.
(2) Mixed flow lanes only.
(3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
(4) HOV lane in operation from 6:00 to 9:00 A.M.
(5) Observations conducted 10/21/03 at Stone Valley Road.

CONTRA COSTA-680

Alcosta Boulevard to Livorna Road

Northbound - P.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	106	3	48	1
Buses	18	6	8	3
Carpools ⁽¹⁾	3372	555	1151	147
Vanpools	55	25	31	4
Single Occ. ⁽²⁾	—	15308	—	5138
Violators	126	—	28	—
TOTAL	3677	15897	1266	5293

PERSONS	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	106	3	48	1
Buses	630	210	280	105
Carpools ⁽¹⁾	7025	1229	2402	318
Vanpools	550	250	310	40
Single Occ. ⁽²⁾	—	15308	—	5138
Violators	126	—	28	—
TOTAL	8437	17000	3068	5602

RATES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.3 persons/veh		2.4 persons/veh	
Mixed Flow occupancy rate		1.1 persons/veh		1.1 persons/veh
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	3.4 %		2.2 %	

NOTES: (1) Two or more persons per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 3:00 to 6:00 P.M.

(5) Observations conducted 10/21/03 at Stone Valley Road.

CONTRA COSTA-680

Violation History

Livorna Road to Alcosta Boulevard

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Thu Apr 3, 2003	6:00 - 9:00 AM	2114	0.6%
	Thu Jun 13, 2002	6:00 - 9:00 AM	2480	1.7%
	Thu Mar 15, 2001	6:00 - 9:00 AM	2609	5.3%
	Thu Apr 6, 2000	6:00 - 9:00 AM	2258	2.8%
	Wed Sep 29, 1999	6:00 - 9:00 AM	1974	3.1%
	Tues Mar 10, 1998	6:00 - 9:00 AM	1545	9.0%
	Wed Oct 29, 1997	6:00 - 9:00 AM	1791	3.9%
	Thu Oct 10, 1996	6:00 - 9:00 AM	1359	2.6%
	Tue Nov 7, 1995	6:00 - 9:00 AM	1179	1.2%
	Thu Oct 13, 1994	6:45 - 9:00 AM	416	16.3%
P.M. PEAK	Tue Apr 8, 2003	3:00 - 6:00 PM	2109	2.4%
	Wed Mar 13, 2002	3:00 - 6:00 PM	2009	7.8%
	Wed May 9, 2001	3:00 - 6:00 PM	1831	8.5%
	Tue Dec 12, 2000	3:00 - 6:00 PM	1337	4.3%
	Wed Sep 29, 1999	3:00 - 6:00 PM	1604	7.2%
	Tue Sep 22, 1998	3:00 - 6:00 PM	2004	8.4%
	Thu Apr 17, 1997	3:00 - 6:00 PM	1344	2.0%
	Wed Oct 9, 1996	3:00 - 6:00 PM	1182	4.1%
	Tue Nov 7, 1995	3:00 - 6:00 PM	645	7.0%
	Thu Oct 13, 1994	3:00 - 6:00 PM	523	11.7%

NOTES: (a) Morning period of operation from 6:00 to 9:00 AM.

(b) Evening period of operation from 3:00 to 6:00 PM.

CONTRA COSTA-680

Violation History

Alcosta Boulevard to Livorna Road

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Tue Oct 21, 2003	6:00 - 9:00 AM	1920	5.0%
	Thu Apr 25, 2002	6:00 - 9:00 AM	1746	6.9%
	Tue Sep 25, 2001	6:00 - 9:00 AM	1681	3.0%
	Thu Nov 2, 2000	6:00 - 9:00 AM	1263	7.0%
	Tue Sep 28, 1999	6:00 - 9:00 AM	621	7.1%
	Thu Nov 5, 1998	6:00 - 9:00 AM	1213	4.6%
	Tue Oct 28, 1997	6:00 - 9:00 AM	1139	4.1%
	Wed Oct 9, 1996	6:00 - 9:00 AM	958	6.6%
	Thu Nov 2, 1995	6:00 - 9:00 AM	1064	4.4%
	Wed Oct 12, 1994	6:45 - 9:00 AM	261	15.7%
P.M. PEAK	Tue Oct 21, 2003	3:00 - 6:00 PM	3677	3.4%
	Wed Nov 20, 2002	3:00 - 6:00 PM	3989	4.5%
	Tue May 8, 2001	3:00 - 6:00 PM	3742	5.0%
	Wed Oct 4, 2000	3:00 - 6:00 PM	4165	3.6%
	Tue Oct 26, 1999	3:00 - 6:00 PM	3224	4.9%
	Tue Oct 6, 1998	3:00 - 6:00 PM	2819	3.1%
	Wed Oct 15, 1997	3:00 - 6:00 PM	2755	4.9%
	Thu Oct 3, 1996	3:00 - 6:00 PM	2523	6.1%
	Thu Nov 2, 1995	3:00 - 6:00 PM	1902	1.2%
	Wed Oct 12, 1994	3:00 - 6:00 PM	466	17.0%

NOTES: (a) Morning period of operation from 6:00 to 9:00 AM.
(b) Evening period of operation from 3:00 to 6:00 PM.

MARIN-101

Greenbrae I/C to Richardson Bridge

Southbound - A.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 6:30 - 8:30 AM		PEAK HOUR 7:30 - 8:30 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	50	20	30	12
Buses	29	58	19	30
Carpools ⁽¹⁾	982	652	522	358
Vanpools	19	0	10	0
Single Occ. ⁽²⁾	—	8198	—	4205
Violators	38	—	15	—
TOTAL	1118	8928	596	4605

PERSONS	PEAK PERIOD ⁽⁴⁾ 6:30 - 8:30 AM		PEAK HOUR 7:30 - 8:30 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	50	20	30	12
Buses	1015	2030	665	1050
Carpools ⁽¹⁾	2164	1400	1175	770
Vanpools	190	0	100	0
Single Occ. ⁽²⁾	—	8198	—	4205
Violators	38	—	15	—
TOTAL	3457	11648	1985	6037

RATES	PEAK PERIOD ⁽⁴⁾ 6:30 - 8:30 AM		PEAK HOUR 7:30 - 8:30 AM	
	HOV Lane occupancy rate	3.1 persons/veh		3.3 persons/veh
Mixed Flow occupancy rate	1.3 persons/veh		1.3 persons/veh	
Overall occupancy (incl. buses)	1.5 persons/veh		1.5 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	3.4 %		2.5 %	

- NOTES:** (1) Two or more occupants per vehicle.
 (2) Mixed flow lanes only.
 (3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
 (4) HOV lane in operation from 6:30 to 8:30 A.M.
 (5) Observations conducted 04/08/03 at Route 131, East Blithdale Ave. I/C

MARIN-101

Richardson Bridge to Greenbra I/C

Northbound - P.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 4:30 - 7:00 PM		PEAK HOUR 4:30 - 5:30 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	24	4	13	0
Buses	101	67	48	27
Carpools ⁽¹⁾	1198	1767	576	732
Vanpools	14	7	6	5
Single Occ. ⁽²⁾	—	9970	—	4166
Violators	33	—	11	—
TOTAL	1370	11815	654	4930

PERSONS	PEAK PERIOD ⁽⁴⁾ 4:30 - 7:00 PM		PEAK HOUR 4:30 - 5:30 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	24	4	13	0
Buses	3535	2345	1680	945
Carpools ⁽¹⁾	2488	3706	1193	1542
Vanpools	140	70	60	50
Single Occ. ⁽²⁾	—	9970	—	4166
Violators	33	—	11	—
TOTAL	6220	16095	2957	6703

RATES	PEAK PERIOD ⁽⁴⁾ 4:30 - 7:00 PM		PEAK HOUR 4:30 - 5:30 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	4.5 persons/veh		4.5 persons/veh	
Mixed Flow occupancy rate		1.4 persons/veh		1.4 persons/veh
Overall occupancy (incl. buses)	1.7 persons/veh		1.7 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	2.4 %		1.7 %	

- NOTES:** (1) Two or more occupants per vehicle.
 (2) Mixed flow lanes only.
 (3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
 (4) HOV lane in operation from 4:30 to 7:00 P.M.
 (5) Observations conducted 04/16/03 at Route 131, E. Blithdale Ave. I/C

MARIN-101

Greenbrae I/C to Richardson Bay Bridge

Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Tue Apr 8, 2003	6:30 - 8:30 AM	1118	3.4%
	Wed Mar 20, 2002	6:30 - 8:30 AM	1591	1.9%
	Wed Mar 28, 2001	6:30 - 8:30 AM	1495	2.3%
	Thu Mar 23, 2000	6:30 - 8:30 AM	1538	2.8%
	Wed Mar 17, 1999	6:30 - 8:30 AM	1394	2.3%
	Tue Mar 3, 1998	6:30 - 8:30 AM	1106	1.6%
	Tue Mar 11, 1997	6:30 - 8:30 AM	1367	2.4%
	Thu Oct 17, 1996	6:30 - 8:30 AM	1446	1.2%
	Tue Oct 31, 1995	6:30 - 8:30 AM	1389	3.7%
	Thu Oct 13, 1994	6:30 - 8:30 AM	1135	6.4%
	Wed Apr 21, 1993	6:30 - 8:30 AM	1325	7.2%
	Thu Mar 26, 1992	6:30 - 8:30 AM	1565	6.8%
	Wed May 22, 1991	6:30 - 8:30 AM	1337	6.1%
	Wed Apr 25, 1990	6:30 - 8:30 AM	1340	4.2%
	Wed Mar 15, 1989	6:30 - 8:30 AM	1517	10.7%
	Wed Sep 28, 1988	6:30 - 8:30 AM	466	16.5%

NOTES: (a) Morning period of operation from 6:30 to 8:30 AM.

MARIN-101

Violation History

Richardson Bay Bridge to Greenbrae I/C

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
P.M. PEAK	Wed Apr 16, 2003	4:30 - 7:00 PM	1370	2.4%
	Tue Sep 17, 2002	4:30 - 7:00 PM	1365	1.5%
	Tue Apr 3, 2001	4:30 - 7:00 PM	1544	3.9%
	Tue Oct 3, 2000	4:30 - 7:00 PM	1771	1.6%
	Tue Mar 16, 1999	4:30 - 7:00 PM	1719	1.9%
	Wed Apr 22, 1998	4:30 - 7:00 PM	1838	4.8%
	Wed Oct 1, 1997	4:30 - 7:00 PM	2217	5.4%
	Thu Oct 24, 1996	4:30 - 7:00 PM	1820	3.4%
	Tue Oct 24, 1995	4:30 - 7:00 PM	1779	3.9%
	Tue Apr 5, 1994	4:30 - 7:00 PM	2031	0.2%
	Tue Apr 20, 1993	4:30 - 7:00 PM	1516	13.5%
	Tue Apr 28, 1992	4:30 - 7:00 PM	1296	9.0%
	Tue Oct 1, 1991	4:30 - 6:30 PM	1197	7.9%
	Wed Apr 25, 1990	4:30 - 7:00 PM	1180	7.5%
	Tue Mar 21, 1989	4:30 - 7:00 PM	1988	6.6%
	Thu Sep 29, 1988	4:30 - 7:00 PM	646	20.4%

NOTES: (a) Evening period of operation from 4:30 to 7:00 PM.

MARIN-101

Route 37 to N. San Pedro Rd

Southbound - A.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 6:30 - 8:30 AM		PEAK HOUR 6:30 - 7:30 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	31	4	15	2
Buses	37	36	16	18
Carpools ⁽¹⁾	2203	286	1282	143
Vanpools	13	0	3	0
Single Occ. ⁽²⁾	—	9598	—	4749
Violators	51	—	1	—
TOTAL	2335	9924	1317	4912

PERSONS	PEAK PERIOD ⁽⁴⁾ 6:30 - 8:30 AM		PEAK HOUR 6:30 - 7:30 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	31	4	15	2
Buses	1295	1260	560	630
Carpools ⁽¹⁾	4582	622	2685	314
Vanpools	130	0	30	0
Single Occ. ⁽²⁾	—	9598	—	4749
Violators	51	—	1	—
TOTAL	6089	11484	3291	5695

RATES	PEAK PERIOD ⁽⁴⁾ 6:30 - 8:30 AM		PEAK HOUR 6:30 - 7:30 AM	
	HOV Lane occupancy rate	2.6 persons/veh		2.5 persons/veh
Mixed Flow occupancy rate	1.2 persons/veh		1.2 persons/veh	
Overall occupancy (incl. buses)	1.4 persons/veh		1.4 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	2.2 %		0.1 %	

- NOTES:** (1) Two or more occupants per vehicle.
 (2) Mixed flow lanes only.
 (3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
 (4) HOV lane in operation from 6:30 to 8:30 A.M.
 (5) Observations conducted 04/03/03 at Alameda Del Prado Dr. I/C

MARIN-101

N. San Pedro Rd to Route 37

Northbound - P.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 4:30 - 7:00 PM		PEAK HOUR 4:30 - 5:30 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	68	16	25	10
Buses	59	39	24	16
Carpools ⁽¹⁾	1654	1303	782	451
Vanpools	10	4	7	1
Single Occ. ⁽²⁾	—	14774	—	6193
Violators	60	—	5	—
TOTAL	1851	16136	843	6671

PERSONS	PEAK PERIOD ⁽⁴⁾ 4:30 - 7:00 PM		PEAK HOUR 4:30 - 5:30 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	68	16	25	10
Buses	2065	1365	840	560
Carpools ⁽¹⁾	3418	2812	1618	969
Vanpools	100	40	70	10
Single Occ. ⁽²⁾	—	14774	—	6193
Violators	60	—	5	—
TOTAL	5711	19007	2558	7742

RATES	PEAK PERIOD ⁽⁴⁾ 4:30 - 7:00 PM		PEAK HOUR 4:30 - 5:30 PM	
	HOV Lane occupancy rate	3.1 persons/veh		3.0 persons/veh
Mixed Flow occupancy rate	1.2 persons/veh		1.2 persons/veh	
Overall occupancy (incl. buses)	1.4 persons/veh		1.4 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	3.2 %		0.6 %	

NOTES: (1) Two or more occupants per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 4:30 to 7:00 P.M.

(5) Observations conducted 04/09/03 at the Manuel Freitas Truck Scale

MARIN-101

Route 37 to N. San Pedro Road

Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Thu Apr 3, 2003	6:30 - 8:30 AM	2335	2.2%
	Tue Mar 19, 2002	6:30 - 8:30 AM	2564	1.2%
	Wed Oct 31, 2001	6:30 - 8:30 AM	2520	1.4%
	Wed Mar 22, 2000	6:30 - 8:30 AM	2610	1.1%
	Thu Mar 18, 1999	6:30 - 8:30 AM	2256	1.8%
	Wed Mar 4, 1998	6:30 - 8:30 AM	2047	3.3%
	Wed Nov 5, 1997	6:30 - 8:30 AM	2690	5.1%
	Tue Nov 19, 1996	6:30 - 8:30 AM	2507	2.6%
	Wed Oct 25, 1995	6:30 - 8:30 AM	2609	4.3%
	Wed Mar 30, 1994	6:30 - 8:30 AM	1702	1.8%
	Tue Apr 27, 1993	6:30 - 8:30 AM	2042	4.8%
	Tue Mar 31, 1992	6:30 - 8:30 AM	1594	7.8%
	Thu Mar 7, 1991	6:45 - 8:30 AM	1423	6.3%
	Thu Apr 26, 1990	6:30 - 8:30 AM	1903	10.7%
	Wed Mar 15, 1989	6:30 - 8:30 AM	1767	10.5%
Thu Sep 15, 1988	6:30 - 8:30 AM	597	36.7%	

NOTES: (a) Morning period of operation from 6:30 to 8:30 AM.

MARIN-101

Violation History

N. San Pedro Road to Route 37

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
P.M. PEAK	Wed Apr 9, 2003	4:30 - 7:00 PM	1851	3.2%
	Thu Sep 19, 2002	4:30 - 7:00 PM	1552	2.6%
	Tue Sep 18, 2001	4:30 - 7:00 PM	1580	1.1%
	Tue Mar 21, 2000	4:30 - 7:00 PM	1921	2.7%
	Thu Sep 16, 1999	4:30 - 7:00 PM	1841	4.0%
	Tue Apr 7, 1998	4:30 - 7:00 PM	2147	2.4%
	Thu Oct 2, 1997	4:30 - 7:00 PM	1867	3.2%
	Thu Oct 17, 1996	4:30 - 7:00 PM	1983	3.9%
	Wed Apr 19, 1995	4:30 - 7:00 PM	1817	0.3%
	Thu Apr 7, 1994	4:30 - 7:00 PM	1233	0.9%
	Wed Apr 21, 1993	4:30 - 7:00 PM	1599	7.9%
	Wed Oct 7, 1992	4:30 - 6:45 PM	1718	7.6%
	Wed Mar 6, 1991	4:30 - 6:00 PM	1647	8.2%
	Thu Apr 26, 1990	4:30 - 7:00 PM	2576	9.3%
	Wed Mar 15, 1989	4:30 - 7:00 PM	2066	8.7%
Wed Sep 28, 1988	4:30 - 7:00 PM	696	24.6%	

NOTES: (a) Evening period of operation from 4:30 to 7:00 PM.

SANTA CLARA-85

Route 101 (Mountain View) to Route 280

Southbound - P.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 3:00 - 4:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	112	4	20	0
Buses	1	0	0	0
Carpools ⁽¹⁾	2172	592	557	303
Vanpools	0	0	0	0
Single Occ. ⁽²⁾	—	9384	—	3302
Violators	38	—	31	—
TOTAL	2323	9980	608	3605

PERSONS	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 3:00 - 4:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	112	4	20	0
Buses	35	0	0	0
Carpools ⁽¹⁾	4516	1242	1139	638
Vanpools	0	0	0	0
Single Occ. ⁽²⁾	—	9384	—	3302
Violators	38	—	31	—
TOTAL	4701	10630	1190	3940

RATES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 3:00 - 4:00 PM	
	HOV Lane occupancy rate	2.0 persons/veh		2.0 persons/veh
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	1.6 %		5.1 %	

- NOTES:** (1) Two or more occupants per vehicle.
 (2) Mixed flow lanes only.
 (3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
 (4) HOV lane in operation from 3:00 to 7:00 P.M.
 (5) Observations conducted 06/04/03 at Fremont Avenue I/C

SANTA CLARA-85

Route 280 to Route 101 (Mountain View)

Northbound - A.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 8:00 - 9:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	104	2	37	0
Buses	0	0	0	0
Carpools ⁽¹⁾	1034	274	466	52
Vanpools	4	0	0	0
Single Occ. ⁽²⁾	—	8110	—	3038
Violators	9	—	7	—
TOTAL	1151	8386	510	3090

PERSONS	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 8:00 - 9:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	104	2	37	0
Buses	0	0	0	0
Carpools ⁽¹⁾	2129	567	972	110
Vanpools	40	0	0	0
Single Occ. ⁽²⁾	—	8110	—	3038
Violators	9	—	7	—
TOTAL	2282	8679	1016	3148

RATES	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 8:00 - 9:00 AM	
	HOV Lane occupancy rate	2.0 persons/veh		2.0 persons/veh
Mixed Flow occupancy rate	1.0 persons/veh		1.0 persons/veh	
Overall occupancy (incl. buses)	1.1 persons/veh		1.2 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	0.8 %		1.4 %	

- NOTES:**
- (1) Two or more occupants per vehicle.
 - (2) Mixed flow lanes only.
 - (3) $\text{Violation rate} = \frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
 - (4) HOV lane in operation from 5:00 to 9:00 A.M.
 - (5) Observations conducted 10/29/03 at Fremont Avenue I/C

SANTA CLARA-85

Route 101 (Mountain View) to Route 280

Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Year 2003	-	-	-
	Wed Oct 23, 2002	7:00 - 9:00 AM	540	10.0%
	Thu Jun 7, 2001	6:00 - 9:00 AM	560	4.1%
	Wed Sep 27, 2000	6:00 - 9:00 AM	604	13.2%
	Tue Jun 8, 1999	6:00 - 9:00 AM	597	9.4%
	Wed Mar 04, 1998	6:00 - 9:00 AM	551	0.5%
	Tue Feb 25, 1997	6:45 - 9:00 AM	397	5.3%
	Wed Apr 3, 1996	6:00 - 9:00 AM	359	5.0%
	Wed Sept 20, 1995	7:00 - 9:00 AM	345	6.4%
	Thu Dec 1, 1994	7:00 - 9:00 AM	618	2.1%
	Wed Jun 9, 1993	6:00 - 9:00 AM	286	26.6%
P.M. PEAK	Wed Jun 4, 2003	3:00 - 6:00 PM	2323	1.6%
	Wed May 29, 2002	3:00 - 6:00 PM	2647	4.4%
	Tue Sep 25, 2001	3:00 - 6:00 PM	2656	6.4%
	Thu Jun 1, 2000	3:00 - 6:00 PM	2792	0.9%
	Thu May 13, 1999	3:00 - 6:00 PM	3121	1.4%
	Thu Apr 9, 1998	4:00 - 6:00 PM	2058	0.2%
	Tue Sept 30, 1997	3:00 - 6:00 PM	2277	1.2%
	Thu May 16, 1996	3:00 - 6:00 PM	2165	3.0%
	Thu Sept 21, 1995	3:00 - 6:00 PM	3671	2.4%
	Tue Nov 29, 1994	3:00 - 5:00 PM	970	2.1%
	Tue May 18, 1993	3:00 - 6:00 PM	1279	7.8%

NOTES: (a) Morning period of operation from 5:00 to 9:00 AM.
(b) Evening period of operation from 3:00 to 7:00 PM.
(c) Data was not collected in 2003 off-peak direction

SANTA CLARA-85

Route 280 to Route 101 (Mountain View)

Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Wed Oct 29, 2003	6:00 - 9:00 AM	1151	0.8%
	Tue Oct 8, 2002	7:00 - 9:00 AM	1435	1.5%
	Tue Apr 10, 2001	6:00 - 9:00 AM	2471	1.8%
	Tue Oct 17, 2000	7:00 - 9:00 AM	2188	10.1%
	Wed Oct 6, 1999	6:00 - 9:00 AM	2402	4.9%
	Tue Dec 1, 1998	6:00 - 9:00 AM	2473	4.7%
	Thu Dec 4, 1997	7:00 - 9:00 AM	1584	0.1%
	Wed Nov 20, 1996	6:45 - 9:00 AM	1840	0.2%
	Tue Sept 12, 1995	7:00 - 9:00 AM	1896	1.4%
	Tue Nov 29, 1994	7:00 - 9:00 AM	1073	1.8%
	Tue Nov 16, 1993	6:30 - 9:00 AM	1031	11.1%
	P.M. PEAK	Year 2003	-	-
Thu Oct 31, 2002		3:00 - 5:30 PM	761	2.2%
Wed Oct 10, 2001		3:00 - 6:00 PM	1124	0.4%
Thu May 4, 2000		3:00 - 6:00 PM	940	2.1%
Thu Oct 28, 1999		3:00 - 6:00 PM	845	1.2%
Wed Mar 4, 1998		3:00 - 6:00 PM	852	3.5%
Tue Feb 25, 1997		3:00 - 6:00 PM	1051	2.7%
Tue Jun 4, 1996		3:00 - 6:00 PM	1008	8.2%
Tue Sept 12, 1995		3:00 - 6:00 PM	652	9.8%
Thu Dec 1, 1994		3:00 - 5:00 PM	569	4.4%
Thu Apr 29, 1993		3:00 - 6:00 PM	382	31.4%

- NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.
(b) Evening period of operation from 3:00 to 7:00 PM.
(c) Data was not collected in 2003 for off-peak direction

SANTA CLARA-85

Route 280 to Almaden Expressway

Southbound - P.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	76	8	29	3
Buses	4	3	3	1
Carpools ⁽¹⁾	2012	744	703	244
Vanpools	10	1	4	0
Single Occ. ⁽²⁾	—	9625	—	3376
Violators	49	—	4	—
TOTAL	2151	10381	743	3624

PERSONS	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	76	8	29	3
Buses	140	105	105	35
Carpools ⁽¹⁾	4180	1576	1456	523
Vanpools	100	10	40	0
Single Occ. ⁽²⁾	—	9625	—	3376
Violators	49	—	4	—
TOTAL	4545	11324	1634	3937

RATES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane occupancy rate	2.1 persons/veh		2.2 persons/veh
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	2.3 %		0.5 %	

- NOTES:** (1) Two or more occupants per vehicle.
 (2) Mixed flow lanes only.
 (3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
 (4) HOV lane in operation from 3:00 to 7:00 P.M.
 (5) Observations conducted 10/22/03 at Winchester Boulevard I/C

SANTA CLARA-85

Almaden Expressway to Route 280

Northbound - A.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 7:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	42	3	22	1
Buses	1	1	1	1
Carpools ⁽¹⁾	1969	99	1062	49
Vanpools	0	0	0	0
Single Occ. ⁽²⁾	—	5933	—	3093
Violators	0	—	0	—
TOTAL	2012	6036	1085	3144

PERSONS	PEAK PERIOD ⁽⁴⁾ 7:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	42	3	22	1
Buses	35	35	35	35
Carpools ⁽¹⁾	4213	204	2279	100
Vanpools	0	0	0	0
Single Occ. ⁽²⁾	—	5933	—	3093
Violators	0	—	0	—
TOTAL	4290	6175	2336	3229

RATES	PEAK PERIOD ⁽⁴⁾ 7:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.1 persons/veh		2.2 persons/veh	
Mixed Flow occupancy rate	1.0 persons/veh		1.0 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	0.0 %		0.0 %	

- NOTES:** (1) Two or more occupants per vehicle.
 (2) Mixed flow lanes only.
 (3) $\text{Violation rate} = \frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
 (4) HOV lane in operation from 5:00 to 9:00 A.M.
 (5) Observations conducted 10/22/03 at Union Avenue I/C

SANTA CLARA-85

Route 280 to Almaden Expressway

Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Year 2003	-	-	-
	Wed May 1, 2002	6:00 - 9:00 AM	256	9.0%
	Tue Apr 17, 2001	6:00 - 9:00 AM	341	5.9%
	Tue May 2, 2000	6:00 - 9:00 AM	363	1.7%
	Thu Mar 11, 1999	6:30 - 9:00 AM	371	0.3%
	Tue Mar 3, 1998	6:00 - 9:00 AM	416	2.4%
	Thu Nov 6, 1997	6:00 - 9:00 AM	456	8.6%
	Wed May 01, 1996	6:30 - 9:00 AM	328	9.1%
	Thu Sept 14, 1995	7:00 - 9:00 AM	514	5.6%
	Wed Dec 7, 1994	7:00 - 9:00 AM	179	20.1%
P.M. PEAK	Wed Oct 22, 2003	3:00 - 6:00 PM	2151	2.3%
	Wed Mar 13, 2002	3:00 - 6:00 PM	2866	3.4%
	Thu Apr 5, 2001	3:00 - 6:00 PM	2798	0.5%
	Tue Apr 18, 2000	3:00 - 6:00 PM	3056	0.5%
	Thu Mar 11, 1999	3:00 - 6:00 PM	2963	0.1%
	Thu Jun 4, 1998	3:00 - 6:00 PM	3004	0.1%
	Thu Feb 27, 1997	3:00 - 6:00 PM	2460	1.3%
	Tue Apr 30, 1996	3:00 - 6:00 PM	3167	7.0%
	Wed Sept 13, 1995	3:00 - 6:00 PM	2774	1.9%
	Thu Dec 15, 1994	3:00 - 5:00 PM	1856	1.3%

NOTES: (a) Morning period of operation from 5:00 to 9:00 AM.
(b) Evening period of operation from 3:00 to 7:00 PM.
(c) Data was not collected in 2003 for off-peak direction

SANTA CLARA-85

Almaden Expressway to Route 280

Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Wed Oct 22, 2003	7:00 - 9:00 AM	2012	0.0%
	Wed Mar 27, 2002	6:00 - 9:00 AM	2572	4.6%
	Tues Oct 16, 2001	6:00 - 9:00 AM	3298	6.4%
	Wed Jun 7, 2000	6:00 - 9:00 AM	3555	9.9%
	Tue Oct 26, 1999	7:00 - 9:00 AM	2350	3.0%
	Wed May 13, 1998	6:00 - 9:00 AM	2801	12.2%
	Wed Nov 5, 1997	6:00 - 9:00 AM	3036	0.4%
	Wed Nov 20, 1996	6:45 - 9:00 AM	1840	0.2%
	Tue Apr 18, 1995	6:30 - 9:00 AM	2145	2.0%
	Tue Dec 6, 1994	7:00 - 9:00 AM	1927	1.9%
P.M. PEAK	Year 2003	-	-	-
	Thu Apr 4, 2002	3:00 - 6:00 PM	1068	7.5%
	Tue Jun 12, 2001	3:00 - 6:00 PM	985	8.9%
	Tue Oct 17, 2000	3:00 - 6:00 PM	642	3.6%
	Tue Feb 23, 1999	3:00 - 6:00 PM	866	8.7%
	Wed Apr 8, 1998	3:00 - 6:00 PM	1097	4.4%
	Wed Oct 8, 1997	3:00 - 6:00 PM	895	0.3%
	Wed Sep 25, 1996	3:00 - 6:00 PM	1417	0.6%
	Tue Oct 3, 1995	3:00 - 6:00 PM	748	6.1%
	Thu Dec 8, 1994	3:00 - 5:00 PM	339	7.4%

NOTES: (a) Morning period of operation from 5:00 to 9:00 AM.
(b) Evening period of operation from 3:00 to 7:00 PM.
(c) Data was not collected in 2003 for off-peak direction

SANTA CLARA-85

Almaden Expressway to Route 101 (So. San Jose)

Southbound - P.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	52	30	25	5
Buses	10	1	2	0
Carpools ⁽¹⁾	1578	678	548	167
Vanpools	2	1	0	0
Single Occ. ⁽²⁾	—	10671	—	3781
Violators	10	—	2	—
TOTAL	1652	11381	577	3953

PERSONS	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	52	30	25	5
Buses	350	35	70	0
Carpools ⁽¹⁾	3268	1444	1137	352
Vanpools	20	10	0	0
Single Occ. ⁽²⁾	—	10671	—	3781
Violators	10	—	2	—
TOTAL	3700	12190	1234	4138

RATES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane occupancy rate	2.2 persons/veh		2.1 persons/veh
Mixed Flow occupancy rate	1.1 persons/veh		1.0 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	0.6 %		0.3 %	

- NOTES:** (1) Two or more occupants per vehicle.
 (2) Mixed flow lanes only.
 (3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
 (4) HOV lane in operation from 3:00 to 7:00 P.M.
 (5) Observations conducted 06/05/03 at Blossom Hill On-Ramp

SANTA CLARA-85

Route 101 (So. San Jose) to Almaden Expressway

Northbound - A.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 7:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	27	2	8	0
Buses	2	0	0	0
Carpools ⁽¹⁾	1003	199	571	76
Vanpools	3	0	2	0
Single Occ. ⁽²⁾	—	4710	—	2677
Violators	0	—	0	—
TOTAL	1035	4911	581	2753

PERSONS	PEAK PERIOD ⁽⁴⁾ 7:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	27	2	8	0
Buses	70	0	0	0
Carpools ⁽¹⁾	2111	411	1207	156
Vanpools	30	0	20	0
Single Occ. ⁽²⁾	—	4710	—	2677
Violators	0	—	0	—
TOTAL	2238	5123	1235	2833

RATES	PEAK PERIOD ⁽⁴⁾ 7:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane occupancy rate	2.2 persons/veh		2.1 persons/veh
Mixed Flow occupancy rate	1.0 persons/veh		1.0 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	0.0 %		0.0 %	

- NOTES:** (1) Two or more occupants per vehicle.
 (2) Mixed flow lanes only.
 (3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
 (4) HOV lane in operation from 5:00 to 9:00 A.M.
 (5) Observations conducted 10/23/03 at Blossom Hill Road Train Station

SANTA CLARA-85

Almaden Expressway to Route 101 (So. San Jose)

Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Year 2003	-	-	-
	Wed Apr 24, 2002	6:00 - 9:00 AM	675	0.3%
	Wed May 2, 2001	6:00 - 9:00 AM	595	1.7%
	Wed May 3, 2000	6:00 - 9:00 AM	635	7.1%
	Wed Feb 3, 1999	6:00 - 9:00 AM	739	0.0%
	Tue May 19, 1998	6:00 - 9:00 AM	602	0.0%
	Thu Dec 4, 1997	6:00 - 9:00 AM	282	12.8%
	Tue May 21, 1996	6:00 - 9:00 AM	324	13.0%
	Tue Sept 26, 1995	7:00 - 9:00 AM	240	8.8%
	Tue Dec 13, 1994	7:00 - 9:00 AM	240	17.5%
P.M. PEAK	Thu Jun 5, 2003	3:00 - 6:00 PM	1652	0.6%
	Thu May 2, 2002	3:00 - 6:00 PM	1981	3.8%
	Wed Oct 3, 2001	3:00 - 6:00 PM	2418	0.2%
	Wed Oct 18, 2000	3:00 - 6:00 PM	2354	0.6%
	Tue May 18, 1999	3:00 - 6:00 PM	2112	2.5%
	Thu Dec 3, 1998	3:00 - 6:00 PM	4447	0.0%
	Thu Oct 16, 1997	3:00 - 6:00 PM	1754	3.6%
	Thu Sep 19, 1996	3:00 - 6:00 PM	960	5.4%
	Thu Oct 5, 1995	3:00 - 6:00 PM	960	5.4%
	Tue Dec 13, 1994	3:00 - 5:00 PM	531	7.7%

NOTES: (a) Morning period of operation from 5:00 to 9:00 AM.
(b) Evening period of operation from 3:00 to 7:00 PM.
(c) Data was not collected in 2003 for off-peak direction

SANTA CLARA-85

Route 101 (So. San Jose) to Almaden Expressway

Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Thu Oct 23, 2003	7:00 - 9:00 AM	1035	0.0%
	Tue Mar 12, 2002	6:00 - 9:00 AM	939	2.6%
	Thu Apr 12, 2001	6:00 - 9:00 AM	1678	7.3%
	Thu Oct 5, 2000	7:00 - 9:00 AM	1222	5.2%
	Tue Oct 5, 1999	6:00 - 9:00 AM	1669	1.1%
	Wed Mar 25, 1998	6:00 - 9:00 AM	1482	0.4%
	Thu Mar 6, 1997	6:30 - 9:00 AM	1019	7.7%
	Thu Jun 13, 1996	6:00 - 9:00 AM	1151	8.4%
	Thu Sept 21, 1995	7:00 - 9:00 AM	981	2.5%
	Thu Dec 8, 1994	7:00 - 9:00 AM	618	3.7%
P.M. PEAK	Year 2003	-	-	-
	Wed Apr 24, 2002	3:00 - 6:00 PM	976	5.0%
	Tue Oct 9, 2001	3:00 - 6:00 PM	814	8.6%
	Wed May 3, 2000	3:00 - 6:00 PM	784	5.6%
	Thu Nov 17, 1999	3:00 - 5:30 PM	826	6.5%
	Thu May 7, 1998	3:00 - 6:00 PM	1062	10.1%
	Tue Oct 30, 1997	3:00 - 6:00 PM	1245	0.2%
	Wed Mar 20, 1996	3:00 - 6:00 PM	907	9.0%
	Tue Sept 19, 1995	3:00 - 6:00 PM	717	8.9%
	Tue Dec 20, 1994	3:00 - 5:00 PM	557	16.5%

NOTES: (a) Morning period of operation from 5:00 to 9:00 AM.
(b) Evening period of operation from 3:00 to 7:00 PM.
(c) Data was not collected in 2003 for off-peak direction

SANTA CLARA-101

SM/SCL County Line to Ellis Street

Southbound - A.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	78	4	26	0
Buses	11	11	1	0
Carpools ⁽¹⁾	1741	518	565	225
Vanpools	9	22	3	8
Single Occ. ⁽²⁾	—	14718	—	6065
Violators	131	—	33	—
TOTAL	1970	15273	628	6298

PERSONS	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	78	4	26	0
Buses	385	385	35	0
Carpools ⁽¹⁾	3646	1121	1185	496
Vanpools	90	220	30	80
Single Occ. ⁽²⁾	—	14718	—	6065
Violators	131	—	33	—
TOTAL	4330	16448	1309	6641

RATES	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane occupancy rate	2.2 persons/veh		2.1 persons/veh
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.1 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	6.6 %		5.3 %	

- NOTES:** (1) Two or more occupants per vehicle.
 (2) Mixed flow lanes only.
 (3) $\text{Violation rate} = \frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
 (4) HOV lane in operation from 5:00 to 9:00 A.M.
 (5) Observations conducted 10/30/03 at the San Antonio Road

SANTA CLARA-101

SM/SCL County Line to Ellis Street

Southbound - P.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 3:00 - 5:45 PM		PEAK HOUR 3:00 - 4:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	97	8	25	0
Buses	5	2	5	1
Carpools ⁽¹⁾	2449	950	871	437
Vanpools	20	2	7	1
Single Occ. ⁽²⁾	—	11033	—	3949
Violators	37	—	36	—
TOTAL	2608	11995	944	4388

PERSONS	PEAK PERIOD ⁽⁴⁾ 3:00 - 5:45 PM		PEAK HOUR 3:00 - 4:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	97	8	25	0
Buses	175	70	175	35
Carpools ⁽¹⁾	5037	2045	1823	938
Vanpools	200	20	70	10
Single Occ. ⁽²⁾	—	11033	—	3949
Violators	37	—	36	—
TOTAL	5546	13176	2129	4932

RATES	PEAK PERIOD ⁽⁴⁾ 3:00 - 5:45 PM		PEAK HOUR 3:00 - 4:00 PM	
	HOV Lane occupancy rate	2.1 persons/veh		2.3 persons/veh
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	1.4 %		3.8 %	

- NOTES:** (1) Two or more occupants per vehicle.
 (2) Mixed flow lanes only.
 (3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
 (4) HOV lane in operation from 3:00 to 7:00 P.M.
 (5) Observations conducted 10/28/03 at the San Antonio Road

SANTA CLARA-101

Ellis Street to SM/SCL County Line

Northbound - A.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	86	40	23	19
Buses	3	15	2	4
Carpools ⁽¹⁾	1920	702	744	256
Vanpools	0	1	0	0
Single Occ. ⁽²⁾	—	13887	—	5140
Violators	123	—	29	—
TOTAL	2132	14645	798	5419

PERSONS	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	86	40	23	19
Buses	105	525	70	140
Carpools ⁽¹⁾	4019	1468	1560	533
Vanpools	0	10	0	0
Single Occ. ⁽²⁾	—	13887	—	5140
Violators	123	—	29	—
TOTAL	4333	15930	1682	5832

RATES	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane occupancy rate	2.0 persons/veh		2.1 persons/veh
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	5.8 %		3.6 %	

- NOTES:** (1) Two or more occupants per vehicle.
 (2) Mixed flow lanes only.
 (3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
 (4) HOV lane in operation from 5:00 to 9:00 A.M.
 (5) Observations conducted 05/22/03 at the San Antonio Road I/C

SANTA CLARA-101

Ellis Street to SM/SCL County Line

Northbound - P.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	102	13	45	1
Buses	1	11	0	1
Carpools ⁽¹⁾	2343	1030	969	274
Vanpools	0	3	0	0
Single Occ. ⁽²⁾	—	12311	—	4625
Violators	189	—	81	—
TOTAL	2635	13368	1095	4901

PERSONS	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	102	13	45	1
Buses	35	385	0	35
Carpools ⁽¹⁾	4943	2145	2033	559
Vanpools	0	30	0	0
Single Occ. ⁽²⁾	—	12311	—	4625
Violators	189	—	81	—
TOTAL	5269	14884	2159	5220

RATES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane occupancy rate	2.0 persons/veh		2.0 persons/veh
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.2 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	7.2 %		7.4 %	

- NOTES:** (1) Two or more occupants per vehicle.
 (2) Mixed flow lanes only.
 (3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
 (4) HOV lane in operation from 3:00 to 7:00 P.M.
 (5) Observations conducted 06/03/03 at the San Antonio Road I/C

SANTA CLARA-101

SM/SCL County Line to Ellis Street

Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Thu Oct 30, 2003	6:00 - 9:00 AM	1970	6.6%
	Wed May 15, 2002	6:00 - 9:00 AM	1949	6.6%
	Wed Mar 21, 2001	6:00 - 9:00 AM	2710	0.8%
	Wed Sep 13, 2000	6:00 - 9:00 AM	2823	10.5%
	Wed Apr 28, 1999	6:00 - 9:00 AM	2817	3.3%
	Thu Mar 12, 1998	6:00 - 9:00 AM	2885	0.6%
	Tue Dec 2, 1997	6:00 - 9:00 AM	2773	2.1%
	Thu Apr 25, 1996	6:30 - 9:00 AM	3742	1.5%
	Thu Jun 8, 1995	6:00 - 9:00 AM	2973	1.6%
	Thu May 5, 1994	6:00 - 9:00 AM	2684	4.8%
	Thu Jun 24, 1993	6:00 - 9:00 AM	1629	8.0%
	P.M. PEAK	Tue Oct 28, 2003	3:00 - 5:45 PM	2608
Tue May 14, 2002		3:00 - 6:00 PM	2119	0.7%
Wed Oct 24, 2001		3:00 - 6:00 PM	2935	4.4%
Thu Mar 25, 1999		3:00 - 6:00 PM	3037	1.2%
Thu Mar 25, 1999		3:00 - 6:00 PM	3037	1.2%
Tue Mar 17, 1998		3:00 - 6:00 PM	2406	0.7%
Wed Oct 29, 1997		3:00 - 6:00 PM	2666	0.0%
Wed Oct 2 1996		3:00 - 6:00 PM	2836	0.6%
Wed Oct 4 1995		3:00 - 6:00 PM	2591	3.9%
Thu Apr 21, 1994		3:00 - 7:00 PM	4979	14.7%
Wed May 12, 1993		3:00 - 6:00 PM	1995	13.4%

NOTES: (a) Morning period of operation from 5:00 to 9:00 AM.
(b) Evening period of operation from 3:00 to 7:00 PM.

SANTA CLARA-101

Ellis Street to SM/SCL County Line

Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Thu May 22, 2003	6:00 - 9:00 AM	2132	5.8%
	Wed Sept 25, 2002	6:45 - 9:00 AM	1479	2.4%
	Thu Oct 4, 2001	6:00 - 9:00 AM	1942	6.0%
	Thu May 18, 2000	6:00 - 9:00 AM	2047	5.1%
	Thu Nov 18, 1999	6:30 - 9:00 AM	1745	2.5%
	Thu Mar 26, 1998	6:00 - 9:00 AM	1986	0.1%
	Tue Dec 2, 1997	7:00 - 9:00 AM	1720	3.8%
	Wed Jun 12, 1996	6:00 - 9:00 AM	3249	0.7%
	Thu May 4, 1995	6:00 - 9:00 AM	2070	5.9%
	Thu Apr 21, 1994	6:00 - 9:00 AM	3114	3.5%
	Wed May 12, 1993	6:00 - 9:00 AM	1509	7.7%
P.M. PEAK	Tue Jun 3, 2003	3:00 - 6:00 PM	2635	7.2%
	Thu Jun 6, 2002	3:00 - 6:00 PM	3064	2.1%
	Wed Oct 17, 2001	3:00 - 6:00 PM	2523	3.2%
	Tue Nov 7, 2000	3:00 - 6:00 PM	3032	4.6%
	Tue Apr 27, 1999	3:00 - 6:00 PM	3034	1.5%
	Wed Mar 11, 1998	3:00 - 6:00 PM	2464	1.3%
	Thu Apr 24, 1997	3:00 - 6:00 PM	3693	0.2%
	Tue Nov 12, 1996	3:00 - 6:00 PM	3151	0.1%
	Wed Mar 15, 1995	3:00 - 6:00 PM	4260	3.4%
	Wed Sep 28, 1994	3:00 - 6:00 PM	4122	2.4%
	Thu Jun 3, 1993	3:00 - 6:00 PM	2831	7.5%

NOTES: (a) Morning period of operation from 5:00 to 9:00 AM.
(b) Evening period of operation from 3:00 to 7:00 PM.

SANTA CLARA-101

Ellis Street to Guadalupe Parkway

Southbound - P.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	129	34	51	11
Buses	6	15	3	6
Carpools ⁽¹⁾	3195	1299	1179	346
Vanpools	0	0	0	0
Single Occ. ⁽²⁾	—	13593	—	4580
Violators	124	—	39	—
TOTAL	3454	14941	1272	4943

PERSONS	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	129	34	51	11
Buses	210	525	105	210
Carpools ⁽¹⁾	6691	2771	2474	732
Vanpools	0	0	0	0
Single Occ. ⁽²⁾	—	13593	—	4580
Violators	124	—	39	—
TOTAL	7154	16923	2669	5533

RATES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane occupancy rate	2.1 persons/veh		2.1 persons/veh
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	3.6 %		3.1 %	

- NOTES:** (1) Two or more occupants per vehicle.
 (2) Mixed flow lanes only.
 (3) $\text{Violation rate} = \frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
 (4) HOV lane in operation from 3:00 to 7:00 P.M.
 (5) Observations conducted 05/29/03 at the San Tomas Expressway I/C

SANTA CLARA-101

Guadalupe Parkway to Ellis Street

Northbound - A.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	22	10	13	4
Buses	0	2	0	1
Carpools ⁽¹⁾	2104	360	858	180
Vanpools	4	1	4	0
Single Occ. ⁽²⁾	—	13004	—	4933
Violators	12	—	5	—
TOTAL	2142	13377	880	5118

PERSONS	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	22	10	13	4
Buses	0	70	0	35
Carpools ⁽¹⁾	4495	768	1836	381
Vanpools	40	10	40	0
Single Occ. ⁽²⁾	—	13004	—	4933
Violators	12	—	5	—
TOTAL	4569	13862	1894	5353

RATES	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane occupancy rate	2.1 persons/veh		2.2 persons/veh
Mixed Flow occupancy rate	1.0 persons/veh		1.0 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	0.6 %		0.6 %	

- NOTES:** (1) Two or more occupants per vehicle.
 (2) Mixed flow lanes only.
 (3) $\text{Violation rate} = \frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
 (4) HOV lane in operation from 5:00 to 9:00 A.M.
 (5) Observations conducted 05/07/03 at the Fair Oaks Avenue I/C

SANTA CLARA-101

Ellis Street to Guadalupe Parkway

Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Year 2003	-	-	-
	Tue Dec 3, 2002	6:00 - 9:00 AM	668	2.2%
	Tue Jun 5, 2001	6:00 - 9:00 AM	765	2.1%
	Thu Apr 20, 2000	6:00 - 9:00 AM	916	3.8%
	Thur Oct 21, 1999	7:00 - 9:00 AM	739	1.8%
	Thu Apr 9, 1998	6:00 - 9:00 AM	1163	4.3%
	Wed Dec 3, 1997	6:00 - 9:00 AM	1272	8.6%
	Thu Nov 7, 1996	6:45 - 9:00 AM	2212	1.1%
	Wed Oct 4, 1995	7:00 - 9:00 AM	1057	4.5%
	Wed Nov 2, 1994	6:30 - 9:00 AM	1124	20.7%
	Tue Jun 15, 1993	6:00 - 9:00 AM	664	2.9%
P.M. PEAK	Thu May 29, 2003	3:00 - 6:00 PM	3454	3.6%
	Thu Apr 11, 2002	3:00 - 6:00 PM	2912	1.2%
	Thu Mar 29, 2001	3:00 - 6:00 PM	3903	3.1%
	Wed Nov 15, 2000	3:00 - 5:30 PM	3077	2.7%
	Wed Oct 20, 1999	3:00 - 6:00 PM	3954	2.3%
	Thu May 14, 1998	4:00 - 6:30 PM	3124	0.2%
	Tue Apr 22, 1997	3:00 - 6:00 PM	3268	1.0%
	Wed May 22, 1996	3:00 - 6:00 PM	3832	1.3%
	Thu Apr 20, 1995	3:00 - 7:00 PM	5831	1.5%
	Wed Nov 2, 1994	3:00 - 5:15 PM	2698	9.5%
	Wed Oct 6, 1993	3:00 - 6:00 PM	3056	7.0%

NOTES: (a) Morning period of operation from 5:00 to 9:00 AM.
(b) Evening period of operation from 3:00 to 7:00 PM.
(c) Data was not collected in 2003 for off-peak direction

SANTA CLARA-101

Violation History

Guadalupe Parkway to Ellis Street

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Wed May 7, 2003	6:00 - 9:00 AM	2142	0.6%
	Thu Apr 4, 2002	6:00 - 9:00 AM	1646	7.5%
	Wed Sep 26, 2001	6:00 - 9:00 AM	1607	0.8%
	Tue Apr 4, 2000	6:00 - 9:00 AM	1527	2.8%
	Wed Oct 20, 1999	7:00 - 9:00 AM	1299	0.5%
	Thu Oct 1, 1998	7:00 - 9:00 AM	1268	1.6%
	Thu Nov 20, 1997	6:00 - 9:00 AM	1700	0.0%
	Thu Sep 26, 1996	7:00 - 9:00 AM	1765	0.7%
	Thu Oct 5, 1995	7:00 - 9:00 AM	1594	3.8%
	Tue Nov 1, 1994	6:30 - 9:00 AM	1861	4.8%
	Wed Oct 6, 1993	7:00 - 9:00 AM	977	14.4%
P.M. PEAK	Year 2003	-	-	-
	Wed May 22, 2002	3:00 - 6:00 PM	1487	3.8%
	Wed May 10, 2000	3:00 - 6:00 PM	1684	0.3%
	Tue Jun 8, 1999	3:00 - 6:00 PM	1765	2.2%
	Thu May 21, 1998	3:00 - 6:00 PM	2066	4.5%
	Thu Apr 10, 1997	3:00 - 6:00 PM	1563	1.5%
	Tue May 21, 1996	3:00 - 6:00 PM	2126	4.2%
	Tue Oct 17, 1995	3:00 - 6:00 PM	1910	6.0%
	Tue Dec 6, 1994	3:00 - 5:00 PM	708	9.3%
	Tue Jun 8, 1993	3:00 - 6:00 PM	1765	2.2%

- NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.
(b) Evening period of operation from 3:00 to 7:00 PM.
(c) Data was not collected in 2003 for off-peak direction

SANTA CLARA-101

Guadalupe Parkway to Route 280/680 I/C

Southbound - P.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	44	4	14	0
Buses	9	9	4	5
Carpools ⁽¹⁾	1795	1578	620	420
Vanpools	3	8	2	5
Single Occ. ⁽²⁾	—	11952	—	4255
Violators	9	—	0	—
TOTAL	1860	13551	640	4685

PERSONS	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	44	4	14	0
Buses	315	315	140	175
Carpools ⁽¹⁾	3681	3389	1282	881
Vanpools	30	80	20	50
Single Occ. ⁽²⁾	—	11952	—	4255
Violators	9	—	0	—
TOTAL	4079	15740	1456	5361

RATES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane occupancy rate	2.2 persons/veh		2.3 persons/veh
Mixed Flow occupancy rate	1.2 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	0.5 %		0.0 %	

- NOTES:** (1) Two or more occupants per vehicle.
 (2) Mixed flow lanes only.
 (3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
 (4) HOV lane in operation from 3:00 to 7:00 P.M.
 (5) Observations conducted 04/03/03 at McKee Road I/C

SANTA CLARA-101

Route 280/680 I/C to Guadalupe Parkway

Northbound - A.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	129	23	47	4
Buses	5	3	1	1
Carpools ⁽¹⁾	3560	998	1479	310
Vanpools	1	5	1	3
Single Occ. ⁽²⁾	—	15893	—	5557
Violators	99	—	26	—
TOTAL	3794	16922	1554	5875

PERSONS	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	129	23	47	4
Buses	175	105	35	35
Carpools ⁽¹⁾	7430	2137	3110	672
Vanpools	10	50	10	30
Single Occ. ⁽²⁾	—	15893	—	5557
Violators	99	—	26	—
TOTAL	7843	18208	3228	6298

RATES	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane occupancy rate	2.1 persons/veh		2.1 persons/veh
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	2.6 %		1.7 %	

- NOTES:** (1) Two or more occupants per vehicle.
 (2) Mixed flow lanes only.
 (3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
 (4) HOV lane in operation from 5:00 to 9:00 A.M.
 (5) Observations conducted 06/12/03 at McKee Road I/C

SANTA CLARA-101

Guadalupe Parkway to Route 280/680 I/C

Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Year 2003	-	-	-
	Thu May 30, 2002	6:00 - 9:00 AM	339	3.5%
	Thu Oct 18, 2001	6:00 - 9:00 AM	495	3.0%
	Thu Jun 8, 2000	6:00 - 9:00 AM	485	11.8%
	Wed Mar 24, 1999	6:00 - 9:00 AM	378	9.5%
	Thu Apr 2, 1998	6:00 - 9:00 AM	436	6.7%
	Wed Mar 5, 1997	6:30 - 9:00 AM	438	2.1%
	Thu Oct 24, 1996	7:00 - 9:00 AM	550	0.4%
	Wed Oct 18, 1995	7:00 - 9:00 AM	172	3.5%
	Tue Nov 8, 1994	6:30 - 9:00 AM	422	18.5%
P.M. PEAK	Thu Apr 3, 2003	3:00 - 6:00 PM	1860	0.5%
	Thu Jun 13, 2002	3:00 - 6:00 PM	2342	1.3%
	Tue Mar 27, 2001	3:00 - 6:00 PM	2840	2.6%
	Thu May 11, 2000	3:00 - 6:00 PM	3049	1.7%
	Tue Dec 14, 1999	3:00 - 5:30 PM	2418	0.4%
	Thu Sep 17, 1998	3:00 - 6:00 PM	3499	2.5%
	Tue Sept 23, 1997	3:00 - 6:00 PM	2965	0.5%
	Wed Oct 23, 1996	3:00 - 6:00 PM	3230	0.3%
	Wed Apr 19, 1995	3:00 - 7:00 PM	3957	2.9%
	Thu Nov 3, 1994	3:00 - 5:15 PM	1856	1.5%

NOTES: (a) Morning period of operation from 5:00 to 9:00 AM.
(b) Evening period of operation from 3:00 to 7:00 PM.
(c) Data was not collected in 2003 for off-peak direction

SANTA CLARA-101

Route 280/680 I/C to Guadalupe Parkway

Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Thu Jun 12, 2003	6:00 - 9:00 AM	3794	2.6%
	Thu Apr 11, 2002	6:30 - 9:00 AM	3438	2.7%
	Thu May 11, 2000	6:00 - 9:00 AM	4839	2.4%
	Wed Apr 14, 1999	6:00 - 9:00 AM	4717	2.9%
	Thu Dec 10, 1998	6:00 - 9:00 AM	4589	1.8%
	Wed Sep 24, 1997	7:00 - 9:00 AM	2994	2.4%
	Wed May 22, 1996	6:00 - 9:00 AM	5386	0.8%
	Thu Nov 2, 1995	6:00 - 9:00 AM	5061	0.5%
	Thu Nov 3, 1994	6:30 - 9:00 AM	3777	2.1%
P.M. PEAK	Year 2003	-	-	-
	Thu May 23, 2002	3:00 - 6:00 PM	1264	1.6%
	Thu Apr 27, 2000	3:00 - 6:00 PM	1318	3.7%
	Tue Dec 7, 1999	3:00 - 5:00 PM	1314	4.3%
	Wed Nov 4, 1998	3:00 - 5:30 PM	1393	0.7%
	Wed Apr 30, 1997	3:00 - 6:00 PM	2171	0.2%
	Thu Nov 14, 1996	3:00 - 6:00 PM	1743	0.0%
	Wed Oct 11, 1995	3:00 - 6:00 PM	1370	6.0%
	Tue Nov 8, 1994	3:00 - 5:00 PM	1272	3.6%

- NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.
(b) Evening period of operation from 3:00 to 7:00 PM.
(c) Data was not collected in 2003 for off-peak direction

SANTA CLARA-101

Route 280/680 I/C to Bernal Road

Southbound - P.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	36	21	13	10
Buses	3	6	1	3
Carpools ⁽¹⁾	2126	1666	717	523
Vanpools	3	4	1	2
Single Occ. ⁽²⁾	—	9172	—	3155
Violators	36	—	0	—
TOTAL	2204	10869	732	3693

PERSONS	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	36	21	13	10
Buses	105	210	35	105
Carpools ⁽¹⁾	4518	3523	1531	1110
Vanpools	30	40	10	20
Single Occ. ⁽²⁾	—	9172	—	3155
Violators	36	—	0	—
TOTAL	4725	12966	1589	4400

RATES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane occupancy rate	2.1 persons/veh		2.2 persons/veh
Mixed Flow occupancy rate	1.2 persons/veh		1.2 persons/veh	
Overall occupancy (incl. buses)	1.4 persons/veh		1.4 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	1.6 %		0.0 %	

- NOTES:** (1) Two or more occupants per vehicle.
 (2) Mixed flow lanes only.
 (3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
 (4) HOV lane in operation from 3:00 to 7:00 P.M.
 (5) Observations conducted 05/01/03 at the Hellyer Avenue I/C

SANTA CLARA-101

Bernal Road to Route 280/680 I/C

Northbound - A.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	90	10	36	4
Buses	3	11	1	3
Carpools ⁽¹⁾	2500	489	1025	143
Vanpools	2	0	2	0
Single Occ. ⁽²⁾	—	12836	—	4380
Violators	25	—	7	—
TOTAL	2620	13346	1071	4530

PERSONS	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	90	10	36	4
Buses	105	385	35	105
Carpools ⁽¹⁾	5372	1076	2212	319
Vanpools	20	0	20	0
Single Occ. ⁽²⁾	—	12836	—	4380
Violators	25	—	7	—
TOTAL	5612	14307	2310	4808

RATES	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane occupancy rate	2.1 persons/veh		2.2 persons/veh
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.3 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	1.0 %		0.7 %	

- NOTES:** (1) Two or more occupants per vehicle.
 (2) Mixed flow lanes only.
 (3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
 (4) HOV lane in operation from 5:00 to 9:00 A.M.
 (5) Observations conducted 06/03/03 at the Hellyer Avenue I/C

SANTA CLARA-101

Route 280/680 I/C to Bernal Road

Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Year 2003	-	-	-
	Thu Jun 6, 2002	6:00 - 9:00 AM	730	5.6%
	Thu Apr 19, 2001	6:00 - 9:00 AM	746	5.4%
	Wed Oct 4, 2000	7:00 - 9:00 AM	413	5.6%
	Wed Nov 3, 1999	6:00 - 9:00 AM	660	0.9%
	Thur May 6, 1998	6:00 - 9:00 AM	576	0.7%
	Thu May 22, 1997	6:30 - 9:00 AM	473	6.1%
	Thu Oct 17, 1996	7:00 - 9:00 AM	538	0.7%
	Tue Oct 24, 1995	7:00 - 9:00 AM	538	6.5%
	Tue Nov 15, 1994	6:45 - 9:00 AM	490	11.4%
	Thu Jun 17, 1993	6:00 - 9:00 AM	737	3.4%
P.M. PEAK	Thu May 1, 2003	3:00 - 6:00 PM	2204	1.6%
	Tue Mar 19, 2002	3:00 - 6:00 PM	1496	2.0%
	Wed May 16, 2001	3:00 - 6:00 PM	1732	0.8%
	Tue Sep 19, 2000	3:00 - 6:00 PM	1898	0.7%
	Tue Mar 16, 1999	3:00 - 6:30 PM	702	4.6%
	Wed Apr 22, 1998	3:00 - 6:00 PM	1498	0.1%
	Tue Oct 7, 1997	3:00 - 6:00 PM	1843	0.1%
	Wed Dec 11, 1996	3:00 - 5:30 PM	1426	3.6%
	Wed May 3, 1995	3:00 - 7:00 PM	2181	11.0%
	Wed Nov 30, 1994	3:00 - 5:00 PM	1116	9.2%
	Thu May 20, 1993	3:00 - 6:00 PM	2154	5.7%

NOTES: (a) Morning period of operation from 5:00 to 9:00 AM.
(b) Evening period of operation from 3:00 to 7:00 PM.
(c) Data was not collected in 2003 for off-peak direction

SANTA CLARA-101

Bernal Road to Route 280/680 I/C

Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Tue Jun 3, 2003	6:00 - 9:00 AM	2620	1.0%
	Thu May 16, 2002	6:00 - 9:00 AM	1859	2.7%
	Tue Apr 3, 2001	6:00 - 9:00 AM	2258	3.5%
	Thu Nov 30, 2000	7:00 - 9:00 AM	1503	2.3%
	Tue Dec 7, 1999	6:30 - 9:00 AM	2550	4.9%
	Tue Dec 8, 1998	6:00 - 9:00 AM	2663	4.8%
	Wed May 21, 1997	6:30 - 9:00 AM	1932	0.9%
	Thu Jun 6, 1996	6:00 - 9:00 AM	2225	0.2%
	Tue Apr 18, 1995	6:00 - 9:00 AM	1614	0.9%
	Wed Nov 9, 1994	6:45 - 9:00 AM	1668	1.6%
	Tue May 25, 1993	6:00 - 9:00 AM	1857	2.7%
	P.M. PEAK	Year 2003	-	-
Wed Mar 27, 2002		3:00 - 6:00 PM	1156	3.1%
Tue May 15, 2001		3:00 - 6:00 PM	1155	5.4%
Wed Apr 5, 2000		3:00 - 6:00 PM	1169	5.9%
Wed May 26, 1999		3:00 - 6:00 PM	1255	5.1%
Thu Apr 23, 1998		3:00 - 6:00 PM	995	4.6%
Wed Mar 12, 1997		3:00 - 6:00 PM	803	0.4%
Wed Dec 4, 1996		3:00 - 5:30 PM	777	3.3%
Thu Oct 19, 1995		3:00 - 6:00 PM	794	2.3%
Wed Dec 7, 1994		3:00 - 5:00 PM	1156	3.4%
Wed Jun 9, 1993		3:00 - 6:00 PM	1160	8.4%

NOTES: (a) Morning period of operation from 5:00 to 9:00 AM.
(b) Evening period of operation from 3:00 to 7:00 PM.
(c) Data was not collected in 2003 for off-peak direction

SANTA CLARA-101

Bernal Road to Cochrane Road

Southbound - P.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	67	41	28	15
Buses	10	7	7	4
Carpools ⁽¹⁾	1675	628	606	201
Vanpools	4	2	4	0
Single Occ. ⁽²⁾	—	8908	—	3049
Violators	19	—	8	—
TOTAL	1775	9586	653	3269

PERSONS	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	67	41	28	15
Buses	350	245	245	140
Carpools ⁽¹⁾	3462	1331	1246	443
Vanpools	40	20	40	0
Single Occ. ⁽²⁾	—	8908	—	3049
Violators	19	—	8	—
TOTAL	3938	10545	1567	3647

RATES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane occupancy rate	2.2 persons/veh		2.4 persons/veh
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	1.1 %		1.2 %	

NOTES: (1) Two or more occupants per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

Observations conducted 05/21/03 at Coyote Creek Golf Drive I/C

SANTA CLARA-101

Cochrane Road to Bernal Road

Northbound - A.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	53	15	22	4
Buses	3	0	1	0
Carpools ⁽¹⁾	1659	508	652	176
Vanpools	5	0	3	0
Single Occ. ⁽²⁾	—	11214	—	3980
Violators	0	—	0	—
TOTAL	1720	11737	678	4160

PERSONS	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	53	15	22	4
Buses	105	0	35	0
Carpools ⁽¹⁾	3518	1094	1389	393
Vanpools	50	0	30	0
Single Occ. ⁽²⁾	—	11214	—	3980
Violators	0	—	0	—
TOTAL	3726	12323	1476	4377

RATES	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane occupancy rate	2.2 persons/veh		2.2 persons/veh
Mixed Flow occupancy rate	1.0 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	0.0 %		0.0 %	

NOTES: (1) Two or more occupants per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 5:00 to 9:00 A.M.

(5) Observations conducted 10/28/03 at Coyote Creek Golf Drive I/C

SANTA CLARA-101

Bernal Road to Cochrane Road

Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Year 2003	-	-	-
P.M. PEAK	Wed May 21, 2003	3:00 - 6:00 PM	1775	1.1%

NOTES: (a) Morning period of operation from 5:00 to 9:00 AM.
(b) Evening period of operation from 3:00 to 7:00 PM.
(c) Data was not collected in 2003 for off-peak period

SANTA CLARA-101

Cochrane Road to Bernal Road

Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Tue Oct 28, 2003	6:00 - 9:00 AM	1720	0.0%
P.M. PEAK	Year 2003	-	-	-

- NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.
(b) Evening period of operation from 3:00 to 7:00 PM.
(c) Data was not collected in 2003 for off-peak direction

SANTA CLARA-237

McCarthy Blvd to Mathilda Avenue

Westbound - A.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	81	25	32	6
Buses	4	0	3	0
Carpools ⁽¹⁾	1559	199	599	76
Vanpools	0	0	0	0
Single Occ. ⁽²⁾	—	12823	—	4512
Violators	0	—	0	—
TOTAL	1644	13047	634	4594

PERSONS	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	81	25	32	6
Buses	140	0	105	0
Carpools ⁽¹⁾	3242	424	1261	162
Vanpools	0	0	0	0
Single Occ. ⁽²⁾	—	12823	—	4512
Violators	0	—	0	—
TOTAL	3463	13272	1398	4680

RATES	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane occupancy rate	2.1 persons/veh		2.2 persons/veh
Mixed Flow occupancy rate	1.0 persons/veh		1.0 persons/veh	
Overall occupancy (incl. buses)	1.1 persons/veh		1.2 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	0.0 %		0.0 %	

- NOTES:** (1) Two or more occupants per vehicle.
 (2) Mixed flow lanes only.
 (3) $\text{Violation rate} = \frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
 (4) HOV lane in operation from 5:00 to 9:00 A.M.
 (5) Observations conducted 05/29/03 at the Zanker Road I/C

SANTA CLARA-237

McCarthy Blvd to Mathilda Avenue

Westbound - P.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	33	12	14	2
Buses	1	1	1	0
Carpools ⁽¹⁾	624	619	298	149
Vanpools	1	2	0	0
Single Occ. ⁽²⁾	—	9599	—	3745
Violators	39	—	0	—
TOTAL	698	10233	313	3896

PERSONS	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	33	12	14	2
Buses	35	35	35	0
Carpools ⁽¹⁾	1298	1337	615	310
Vanpools	10	20	0	0
Single Occ. ⁽²⁾	—	9599	—	3745
Violators	39	—	0	—
TOTAL	1415	11003	664	4057

RATES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane occupancy rate	2.0 persons/veh		2.1 persons/veh
Mixed Flow occupancy rate	1.1 persons/veh		1.0 persons/veh	
Overall occupancy (incl. buses)	1.1 persons/veh		1.1 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	5.6 %		0.0 %	

- NOTES:** (1) Two or more occupants per vehicle.
 (2) Mixed flow lanes only.
 (3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
 (4) HOV lane in operation from 3:00 to 7:00 P.M.
 (5) Observations conducted 10/09/03 at the Zanker Road I/C

SANTA CLARA-237

Mathilda Avenue to Route 880/237 I/C

Eastbound - P.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	67	5	32	0
Buses	8	1	3	0
Carpools ⁽¹⁾	1201	289	566	85
Vanpools	8	0	2	0
Single Occ. ⁽²⁾	—	10119	—	3721
Violators	12	—	2	—
TOTAL	1296	10414	605	3806

PERSONS	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	67	5	32	0
Buses	280	35	105	0
Carpools ⁽¹⁾	2504	613	1188	177
Vanpools	80	0	20	0
Single Occ. ⁽²⁾	—	10119	—	3721
Violators	12	—	2	—
TOTAL	2943	10772	1347	3898

RATES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane occupancy rate	2.3 persons/veh		2.2 persons/veh
Mixed Flow occupancy rate	1.0 persons/veh		1.0 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	0.9 %		0.3 %	

NOTES: 1) Two or more occupants per vehicle.

2) Mixed flow lanes only.

3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

4) HOV lane in operation from 3:00 to 7:00 P.M.

5) Observations conducted 10/14/03 at the Zanker Road I/C

SANTA CLARA-237

McCarthy Blvd to Mathilda Avenue

Violation History

Westbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Thu May 29, 2003	6:00 - 9:00 AM	1644	0.0%
	Thu May 2, 2002	6:00 - 9:00 AM	1577	3.7%
	Thu May 3, 2001	6:00 - 9:00 AM	1916	5.3%
	Wed Nov 15, 2000	6:00 - 9:00 AM	2055	2.7%
	Tue Nov 9, 1999	6:30 - 9:00 AM	1917	1.9%
	Tue Sep 29, 1998	7:00 - 9:00 AM	1770	3.3%
	Tue May 13, 1997	6:30 - 9:00 AM	2015	2.8%
	Thu May 30, 1996	6:00 - 9:00 AM	3274	0.5%
	Wed Oct 25, 1995	7:00 - 9:00 AM	1308	2.6%
P.M. PEAK	Thu Oct 9, 2003	3:00 - 6:00 PM	698	5.6%
	Wed May 15, 2002	3:00 - 6:00 PM	773	2.2%
	Wed May 30, 2001	3:00 - 6:00 PM	1102	3.1%
	Wed Sep 13, 2000	3:00 - 6:00 PM	1155	2.5%
	Wed Mar 3, 1999	3:00 - 7:00 PM	1260	0.6%
	Tue Sep 29, 1998	3:00 - 6:00 PM	1658	2.8%
	Tue Oct 14, 1997	3:00 - 6:00 PM	1866	0.8%
	Wed Jun 12, 1996	3:00 - 6:00 PM	1593	0.9%
	Tue Oct 24, 1995	3:00 - 6:00 PM	1072	7.3%

NOTES: (a) Morning period of operation from 5:00 to 9:00 AM.

(b) Evening period of operation from 3:00 to 7:00 PM.

SANTA CLARA-237

Mathilda Avenue to Route 880/237 I/C

Violation History

Eastbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Year 2003	-	-	-
	Thu Oct 31, 2002	7:00 - 9:00 AM	561	12.1%
	Thu Mar 29, 2001	6:00 - 9:00 AM	759	15.0%
	Thu May 25, 2000	6:00 - 9:00 AM	536	5.8%
	Thu Oct 14, 1999	6:00 - 9:00 AM	769	11.4%
	Thu Oct 8, 1998	7:00 - 9:00 AM	750	3.2%
	Wed Oct 29, 1997	6:30 - 9:00 AM	723	0.1%
	Thu Nov 14, 1996	6:30 - 9:00 AM	845	7.5%
	Thu Oct 26, 1995	7:00 - 9:00 AM	495	2.2%
P.M. PEAK	Tue Oct 14, 2003	3:00 - 6:00 PM	1296	0.9%
	Wed May 1, 2002	3:00 - 6:00 PM	1396	1.9%
	Thu May 3, 2001	3:00 - 6:00 PM	1255	2.1%
	Tue Mar 21, 2000	4:00 - 7:00 PM	2181	0.4%
	Thu Nov 18, 1999	3:00 - 6:00 PM	2535	3.0%
	Thu Oct 15, 1998	3:00 - 6:00 PM	2418	5.0%
	Tue Oct 28, 1997	3:00 - 6:00 PM	2835	2.7%
	Thu Oct 17, 1996	3:00 - 6:00 PM	3682	0.3%
	Wed Oct 25, 1995	3:00 - 6:00 PM	1827	5.8%

NOTES: (a) Morning period of operation from 5:00 to 9:00 AM.
(b) Evening period of operation from 3:00 to 7:00 PM.
(c) Data was not collected in 2003 for off-peak direction

SANTA CLARA-280

Magdalena Avenue to Leland Avenue

Southbound - P.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 3:00 - 5:30 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	34	14	15	6
Buses	2	2	2	2
Carpools ⁽¹⁾	1702	1049	795	322
Vanpools	1	12	1	1
Single Occ. ⁽²⁾	—	10446	—	4403
Violators	17	—	1	—
TOTAL	1756	11523	814	4734

PERSONS	PEAK PERIOD ⁽⁴⁾ 3:00 - 5:30 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	34	14	15	6
Buses	70	70	70	70
Carpools ⁽¹⁾	3556	2220	1691	678
Vanpools	10	120	10	10
Single Occ. ⁽²⁾	—	10446	—	4403
Violators	17	—	1	—
TOTAL	3687	12870	1787	5167

RATES	PEAK PERIOD ⁽⁴⁾ 3:00 - 5:30 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane occupancy rate	2.1 persons/veh		2.2 persons/veh
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.3 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	1.0 %		0.1 %	

- NOTES:** (1) Two or more occupants per vehicle.
 (2) Mixed flow lanes only.
 (3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
 (4) HOV lane in operation from 3:00 to 7:00 P.M.
 (5) Observations conducted 06/12/03 at the Wolfe Road I/C

SANTA CLARA-280

Leland Avenue to Magdalena Avenue

Northbound - A.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	57	17	23	3
Buses	0	4	0	0
Carpools ⁽¹⁾	1386	661	627	261
Vanpools	0	0	0	0
Single Occ. ⁽²⁾	—	12678	—	4757
Violators	115	—	49	—
TOTAL	1558	13360	699	5021

PERSONS	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	57	17	23	3
Buses	0	140	0	0
Carpools ⁽¹⁾	2896	1420	1308	568
Vanpools	0	0	0	0
Single Occ. ⁽²⁾	—	12678	—	4757
Violators	115	—	49	—
TOTAL	3068	14255	1380	5328

RATES	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane occupancy rate	2.0 persons/veh		2.0 persons/veh
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	7.4 %		7.0 %	

- NOTES:** (1) Two or more occupants per vehicle.
 (2) Mixed flow lanes only.
 (3) $\text{Violation rate} = \frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
 (4) HOV lane in operation from 5:00 to 9:00 A.M.
 (5) Observations conducted 06/05/03 at the Wolfe Road I/C

SANTA CLARA-280

Magdalena Avenue to Leland Avenue

Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Year for 2003	-	-	-
	Thu Apr 18, 2002	6:30 - 9:00 AM	372	4.6%
	Thu Apr 5, 2001	6:00 - 9:00 AM	524	2.7%
	Thu Apr 13, 2000	6:00 - 9:00 AM	474	9.3%
	Tue Apr 20, 1999	6:00 - 9:00 AM	608	0.3%
	Thu Jun 4, 1998	6:00 - 9:00 AM	781	0.1%
	Wed Oct 22, 1997	7:00 - 9:00 AM	592	0.0%
	Wed Oct 9, 1996	7:00 - 9:00 AM	1087	1.4%
	Wed Nov 1, 1995	6:30 - 9:00 AM	566	4.9%
	Wed Nov 30, 1994	7:00 - 9:00 AM	989	1.6%
	Thu Dec 9, 1993	7:00 - 9:00 AM	469	4.5%
	P.M. PEAK	Thu Jun 12, 2003	3:00 - 5:30 PM	1756
Thu Sep 19, 2002		3:00 - 6:00 PM	1933	0.6%
Thu Oct 11, 2001		3:00 - 6:00 PM	2221	1.0%
Wed Oct 11, 2000		3:00 - 6:00 PM	2325	5.0%
Wed Apr 21, 1999		3:00 - 6:00 PM	2058	4.9%
Tue Dec 8, 1998		3:00 - 6:00 PM	2236	1.0%
Tue Oct 21, 1997		3:00 - 6:00 PM	2050	2.8%
Tue Jun 11, 1996		3:00 - 6:00 PM	1716	4.3%
Tue May 16, 1995		3:00 - 6:00 PM	1996	9.3%
Wed Nov 16, 1994		3:00 - 5:00 PM	858	2.3%
Wed May 26, 1993		3:00 - 6:00 PM	2348	1.7%

- NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.
(b) Evening period of operation from 3:00 to 7:00 PM.
(c) Data was not collected in 2003 for off-peak direction

SANTA CLARA-280

Leland Avenue to Magdalena Avenue

Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Thu Jun 5, 2003	6:00 - 9:00 AM	1558	7.4%
	Tue May 21, 2002	6:00 - 9:00 AM	1355	5.4%
	Tue Nov 6, 2001	6:00 - 9:00 AM	1253	1.6%
	Wed Mar 29, 2000	6:00 - 9:00 AM	2086	1.7%
	Thu Nov 4, 1999	6:30 - 9:00 AM	1884	0.3%
	Wed Dec 9, 1998	6:00 - 9:00 AM	2235	3.7%
	Wed Apr 23, 1997	6:00 - 9:00 AM	1851	0.10%
	Tue Jun 11, 1996	6:00 - 9:00 AM	1762	1.40%
	Thu May 18, 1995	6:00 - 9:00 AM	2510	1.50%
	Wed Nov 16, 1994	6:45 - 9:00 AM	1124	2.9%
Wed Nov 17, 1993	6:30 - 9:00 AM	2639	1.3%	
P.M. PEAK	Year 2003	-	-	-
	Tue May 28, 2002	3:00 - 6:00 PM	1081	1.5%
	Wed Apr 4, 2001	3:00 - 6:00 PM	1160	0.9%
	Thu Apr 13, 2000	3:00 - 6:00 PM	1106	5.4%
	Tue Apr 20, 1999	3:00 - 6:00 PM	938	0.2%
	Tue Sep 15, 1998	3:00 - 6:00 PM	955	5.3%
	Wed, Apr 23, 1997	3:00 - 6:00 PM	1975	0.5%
	Thu Dec 12, 1996	3:00 - 5:30 PM	1205	4.2%
	Wed May 17, 1995	3:00 - 6:00 PM	1095	13.2%
	Thu Nov 17, 1994	3:00 - 5:00 PM	584	9.1%
Thu Jun 10, 1993	3:00 - 6:00 PM	1238	4.2%	

- NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.
(b) Evening period of operation from 3:00 to 7:00 PM.
(c) Data was not collected in 2003 for off-peak direction

SAN FRANCISCO-80 RAMP HOV BYPASS LANES

Sterling Street on-ramp to SFOBB

Eastbound-P.M.

Typical data for 2003 ⁽⁵⁾

PEAK PERIOD ⁽⁴⁾

3:30 - 7:00 PM

PEAK HOUR

4:00 - 5:00 PM

VEHICLES

	HOV Lane	SOV Lane	HOV Lane	SOV Lane
Motorcycles	82	—	17	—
Buses	7	—	4	—
Carpool ⁽¹⁾	1088	—	372	—
2 - seaters ⁽²⁾	409	—	130	—
Vanpools	67	—	34	—
Trucks	39	—	15	—
Violators	493	—	164	—
TOTAL	2185	N/A	736	N/A

PERSONS

	HOV Lane	SOV Lane	HOV Lane	SOV Lane
Motorcycles	82	—	17	—
Buses	245	—	140	—
Carpool ⁽¹⁾	3373	—	1153	—
2 - seaters ⁽²⁾	818	—	260	—
Vanpools	670	—	340	—
Trucks	39	—	15	—
Violators	771	—	260	—
TOTAL	5998	N/A	2185	N/A

RATES

HOV Lane occupancy rate	2.7 persons/veh	3.0 persons/veh
Violation rate ⁽³⁾ (HOV Lane)	22.6 %	22.3 %

NOTES: (1) 3 or more persons per vehicle.

(2) 2 - seater vehicles with 2 persons.

(3) $Violation\ rate = \frac{no.\ of\ violators\ in\ HOV\ lane}{Total\ no.\ of\ vehicles\ in\ HOV\ lane} \times 100\%$

(4) HOV lane in operation from 3:30 to 7:00 PM.

(5) Observations conducted 4/30/03 at the Sterling Street on-ramp

SAN FRANCISCO-80 RAMP HOV BYPASS LANES

Sterling Street On-Ramp to SFOBB

Violation History

Eastbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
P.M. PEAK	Wed Apr 30, 2003	3:30 - 7:00 PM	2185	22.6%
	Tue Sep 17, 2002	3:30 - 7:00 PM	2713	15.1%
	Wed Oct 10, 2001	3:30 - 7:00 PM	3133	10.4%
	Thu Oct 19, 2000	3:30 - 7:00 PM	3327	6.5%
	Thu Oct 14, 1999	3:30 - 7:00 PM	3566	27.5%
	Thu Dec 3, 1998	3:30 - 7:00 PM	3276	29.0%
	Wed Jun 11, 1997	3:30 - 7:00 PM	2810	12.4%
	Tue Apr 23, 1996	3:30 - 7:00 PM	1891	22.2%
	Wed Mar 29, 1995	3:30 - 7:00 PM	2692	52.6%
	Tue May 17, 1994	4:00 - 6:00 PM	787	28.3%
	Wed Oct 13, 1993	4:00 - 6:00 PM	1023	34.6%
	Thu Jun 4, 1992	4:00 - 6:00 PM	1051	35.0%
	Tue Dec 3, 1991	4:00 - 6:00 PM	1427	28.0%
	Thu Nov 15, 1990	4:00 - 6:00 PM	701	58.3%
	Tue Apr 18, 1989	4:30 - 6:00 PM	821	17.4%
	Tue Apr 26, 1988	4:00 - 6:00 PM	1599	69.2%
	Tue Oct 20, 1987	4:00 - 6:00 PM	1103	53.3%
	Tue Apr 21, 1987	4:00 - 6:00 PM	960	40.1%
Tue Oct 21, 1986	4:00 - 6:00 PM	1576	50.7%	
Tue Oct 22, 1985	4:00 - 6:00 PM	1252	38.4%	

NOTES: Evening period of operation from 3:30 to 7:00 P.M.

SAN MATEO-101

Whipple Avenue to SM/SCL County Line

Southbound - A.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 8:00 - 9:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	55	9	33	4
Buses	4	40	4	2
Carpools ⁽¹⁾	1629	419	703	166
Vanpools	2	3	0	1
Single Occ. ⁽²⁾	—	13285	—	4798
Violators	11	—	3	—
TOTAL	1701	13756	743	4971

PERSONS	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 8:00 - 9:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	55	9	33	4
Buses	140	1400	140	70
Carpools ⁽¹⁾	3298	889	1426	352
Vanpools	20	30	0	10
Single Occ. ⁽²⁾	—	13285	—	4798
Violators	11	—	3	—
TOTAL	3524	15613	1602	5234

RATES	PEAK PERIOD ⁽⁴⁾ 6:00 - 9:00 AM		PEAK HOUR 8:00 - 9:00 AM	
	HOV Lane occupancy rate	2.1 persons/veh		2.2 persons/veh
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	0.6 %		0.4 %	

- NOTES:** (1) Two or more occupants per vehicle.
 (2) Mixed flow lanes only.
 (3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
 (4) HOV lane in operation from 5:00 to 9:00 A.M.
 (5) Observations conducted 04/09/03 at the Woodside Road I/C

SAN MATEO-101

Whipple Avenue to SM/SCL County Line

Southbound - P.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	57	17	28	7
Buses	10	16	3	0
Carpools ⁽¹⁾	1374	1536	536	413
Vanpools	10	1	3	0
Single Occ. ⁽²⁾	—	13479	—	4885
Violators	37	—	4	—
TOTAL	1488	15049	574	5305

PERSONS	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	57	17	28	7
Buses	350	560	105	0
Carpools ⁽¹⁾	2906	3217	1148	876
Vanpools	100	10	30	0
Single Occ. ⁽²⁾	—	13479	—	4885
Violators	37	—	4	—
TOTAL	3450	17283	1315	5768

RATES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane occupancy rate	2.3 persons/veh		2.3 persons/veh
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.2 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	2.5 %		0.7 %	

- NOTES:** (1) Two or more occupants per vehicle.
 (2) Mixed flow lanes only.
 (3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
 (4) HOV lane in operation from 3:00 to 7:00 P.M.
 (5) Observations conducted 05/14/03 at the Woodside Road I/C

SAN MATEO-101

SM/SCL County Line to Whipple Avenue

Northbound - A.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 7:00 - 9:00 AM		PEAK HOUR 9:00 - 10:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	33	3	15	3
Buses	0	13	0	6
Carpools ⁽¹⁾	978	606	547	315
Vanpools	5	0	3	0
Single Occ. ⁽²⁾	—	8818	—	5195
Violators	15	—	7	—
TOTAL	1031	9440	572	5519

PERSONS	PEAK PERIOD ⁽⁴⁾ 7:00 - 9:00 AM		PEAK HOUR 9:00 - 10:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	33	3	15	3
Buses	0	455	0	210
Carpools ⁽¹⁾	2028	1359	1135	693
Vanpools	50	0	30	0
Single Occ. ⁽²⁾	—	8818	—	5195
Violators	15	—	7	—
TOTAL	2126	10635	1187	6101

RATES	PEAK PERIOD ⁽⁴⁾ 7:00 - 9:00 AM		PEAK HOUR 9:00 - 10:00 AM	
	HOV Lane occupancy rate	2.1 persons/veh	2.1 persons/veh	2.1 persons/veh
Mixed Flow occupancy rate	1.1 persons/veh	1.1 persons/veh	1.1 persons/veh	1.1 persons/veh
Overall occupancy (incl. buses)	1.2 persons/veh	1.2 persons/veh	1.2 persons/veh	1.2 persons/veh
Violation rate ⁽³⁾ (HOV Lane)	1.5 %	1.5 %	1.2 %	1.2 %

- NOTES:** (1) Two or more occupants per vehicle.
 (2) Mixed flow lanes only.
 (3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
 (4) HOV lane in operation from 5:00 to 9:00 A.M.
 (5) Observations conducted 10/09/03 at the Woodside Road I/C

SAN MATEO-101

SM/SCL County Line to Whipple Avenue

Northbound - P.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	68	25	37	5
Buses	5	14	4	1
Carpools ⁽¹⁾	2199	1440	837	393
Vanpools	8	6	0	0
Single Occ. ⁽²⁾	—	12112	—	4527
Violators	47	—	3	—
TOTAL	2327	13597	881	4926

PERSONS	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	68	25	37	5
Buses	175	490	140	35
Carpools ⁽¹⁾	4604	3031	1777	831
Vanpools	80	60	0	0
Single Occ. ⁽²⁾	—	12112	—	4527
Violators	47	—	3	—
TOTAL	4974	15718	1957	5398

RATES	PEAK PERIOD ⁽⁴⁾ 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane occupancy rate	2.1 persons/veh		2.2 persons/veh
Mixed Flow occupancy rate	1.2 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	2.0 %		0.3 %	

- NOTES:** (1) Two or more occupants per vehicle.
 (2) Mixed flow lanes only.
 (3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
 (4) HOV lane in operation from 3:00 to 7:00 P.M.
 (5) Observations conducted 04/08/03 at the Woodside Road I/C

SAN MATEO-101

Whipple Avenue to the SM/SCL County Line

Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Wed Apr 9, 2003	6:00 - 9:00 AM	1701	0.6%
	Tue Mar 26, 2002	6:00 - 9:00 AM	1549	3.5%
	Thu Mar 22, 2001	6:00 - 9:00 AM	1746	2.2%
	Tue Apr 25, 2000	6:00 - 9:00 AM	1849	7.0%
	Thu Dec 2, 1999	6:45 - 9:00 AM	1915	5.2%
	Tue Mar 10, 1998	6:00 - 9:00 AM	2711	0.8%
	Tue Sept 23, 1997	7:00 - 9:00 AM	1761	0.7%
	Wed Mar 27, 1996	6:00 - 9:00 AM	1681	4.6%
	Wed Jun 7, 1995	6:00 - 9:00 AM	1922	3.0%
	Tue Sep 27, 1994	6:45 - 9:00 AM	2078	4.2%
	Wed Jun 16, 1993	6:00 - 9:00 AM	1236	17.3%
P.M. PEAK	Wed May 14, 2003	3:00 - 6:00 PM	1488	2.5%
	Wed Oct 2, 2002	3:00 - 6:00 PM	1895	3.2%
	Thu Nov 8, 2001	3:00 - 5:30 PM	1685	7.0%
	Thu Oct 12, 2000	3:00 - 6:00 PM	2245	3.3%
	Wed Dec 8, 1999	3:00 - 5:15 PM	1683	0.5%
	Thu Dec 10, 1998	3:00 - 6:00 PM	2537	1.6%
	Wed Nov 5, 1997	3:00 - 6:00 PM	2514	0.6%
	Wed Mar 27, 1996	3:00 - 6:00 PM	2836	1.9%
	Tue Sept 26, 1995	3:00 - 6:00 PM	2505	2.0%
	Tue Oct 18, 1994	3:00 - 6:00 PM	2613	7.0%
	Tue May 11, 1993	3:00 - 6:00 PM	1535	19.6%

NOTES: (a) Morning period of operation from 5:00 to 9:00 AM.
(b) Evening period of operation from 3:00 to 7:00 PM.

SAN MATEO-101

SM/SCL County Line to Whipple Avenue

Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Thu Oct 9, 2003	7:00 - 9:00 AM	1031	1.5%
	Tue Apr 9, 2002	6:45 - 9:00 AM	865	5.7%
	Wed Oct 31, 2001	6:00 - 9:00 AM	1662	2.1%
	Thu Oct 12, 2000	6:00 - 9:00 AM	2964	4.7%
	Thu Apr 29, 1999	6:00 - 9:00 AM	2088	0.5%
	Tue Oct 27, 1998	6:00 - 9:00 AM	1873	2.1%
	Thu Sept 25, 1997	7:00 - 9:00 AM	1348	0.1%
	Wed Jun 5, 1996	6:00 - 9:00 AM	1799	3.3%
	Thu Jun 15, 1995	6:00 - 9:00 AM	2272	2.9%
	Tue Apr 19, 1994	6:00 - 9:00 AM	2549	5.8%
	Tue Jun 8, 1993	6:00 - 9:00 AM	1695	4.2%
P.M. PEAK	Tue Apr 8, 2003	3:00 - 6:00 PM	2327	2.0%
	Wed Jun 5, 2002	3:00 - 6:00 PM	1969	3.4%
	Wed Nov 14, 2001	3:00 - 5:30 PM	1675	0.2%
	Tue Sep 12, 2000	3:00 - 6:00 PM	2329	14.3%
	Tue Oct 26, 1999	3:00 - 6:00 PM	2987	8.5%
	Wed Dec 9, 1998	3:00 - 6:00 PM	2670	6.6%
	Tue Apr 29, 1997	3:00 - 6:00 PM	2616	0.9%
	Thu Sep 26, 1996	3:00 - 6:00 PM	2619	5.8%
	Tue Jun 6, 1995	3:00 - 6:30 PM	2617	4.4%
	Wed Apr 20, 1994	3:00 - 6:00 PM	3530	3.1%
	Wed Jun 2, 1993	3:00 - 6:00 PM	1763	8.2%

NOTES: (a) Morning period of operation from 5:00 to 9:00 AM.
(b) Evening period of operation from 3:00 to 7:00 PM.

SOLANO-80

Carquinez Bridge Toll Plaza

Eastbound - P.M.

Typical data for 2003⁽⁶⁾

VEHICLES	PEAK PERIOD ⁽⁵⁾ 3:00 to 7:00 P.M.		PEAK HOUR 4:00 to 5:00 P.M.	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	176	—	53	—
Buses ⁽⁴⁾	62	—	14	—
Carpools ⁽¹⁾	1812	—	484	—
2 - seaters ⁽²⁾	760	—	203	—
Vanpools	253	—	64	—
Violators (HOV only)	297	—	77	—
TOTAL	3360	17339 ⁽⁷⁾	895	4643

PERSONS	PEAK PERIOD ⁽⁵⁾ 3:00 to 7:00 P.M.		PEAK HOUR 4:00 to 5:00 P.M.	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	176	—	53	—
Buses ⁽⁴⁾	2170	—	490	—
Carpools ⁽¹⁾	5617	—	1500	—
2 - seaters ⁽²⁾	1520	—	406	—
Vanpools	2530	—	640	—
Violators (HOV only)	508	—	135	—
TOTAL	12521	19073 ⁽⁷⁾	3224	5107

RATES	PEAK PERIOD ⁽⁵⁾ 3:00 to 7:00 P.M.		PEAK HOUR 4:00 to 5:00 P.M.	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	3.7 persons/veh	—	3.6 persons/veh	—
Mixed Flow Occupancy Rate ⁽⁷⁾	1.1 persons/veh	—	1.1 persons/veh	—
Violation rate (HOV Lane) ⁽³⁾	8.8 %	—	8.6 %	—

- NOTES:** (1) 3 or more persons per vehicle.
 (2) 2 - seater vehicles with 2 persons.
 (3) $\text{Violation rate} = \frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
 (4) Assumed PM bus occupancy = 35 persons/vehicle.
 (5) HOV lane in operation from 3:00 to 7:00 P.M.
 (6) Observations conducted 5/15/03 at the Carquinez Bridge Toll Plaza.
 (7) Data from Toll Plaza vehicle Registration Report.

SOLANO-80

Carquinez Bridge Toll Plaza

Violation History

Eastbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Year 2003	-	-	-
	Thu Nov 14, 2002	5:00 - 10:00 AM	706	10.1%
	Thu May 31, 2001	5:00 - 10:00 AM	804	24.5%
	Thu Nov 16, 2000	5:00 - 10:00 AM	773	34.4%
	Wed Mar 10, 1999	6:00 - 10:00 AM	664	26.2%
	Wed Sep 16, 1998	6:00 - 10:00 AM	559	27.2%
	Tue Dec 2, 1997	6:00 - 10:00 AM	406	7.9%
P.M. PEAK	Thu May 15, 2003	3:00 - 7:00 PM	3360	8.8%
	Thu Sep 26, 2002	3:00 - 7:00 PM	3429	9.5%
	Thu Mar 29, 2001	3:00 - 7:00 PM	3493	1.2%
	Tue Oct 17, 2000	3:00 - 7:00 PM	3373	9.5%
	Wed Sep 29, 1999	3:00 - 7:00 PM	2945	12.9%
	Wed Sep 16, 1998	3:00 - 7:00 PM	2203	12.4%
	Thu Nov 6, 1997	3:00 - 6:00 PM	1260	6.0%

NOTES: (a) Morning period of operation from 5:00 to 10:00 AM
(b) Evening period of operation from 3:00 to 7:00 PM.
(c) Data was not collected in 2003 for off-peak direction

SONOMA-101

Route 12 to Wilfred Avenue

Southbound - A.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 6:30 - 9:30 AM		PEAK HOUR 7:30 - 8:30 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	56	6	17	1
Buses	9	13	3	1
Carpools ⁽¹⁾	883	407	316	122
Vanpools	1	4	1	4
Single Occ. ⁽²⁾	—	8998	—	3192
Violators	48	—	16	—
TOTAL	997	9428	353	3320

PERSONS	PEAK PERIOD ⁽⁴⁾ 6:30 - 9:30 AM		PEAK HOUR 7:30 - 8:30 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	56	6	17	1
Buses	315	455	105	35
Carpools ⁽¹⁾	1880	856	654	263
Vanpools	10	40	10	40
Single Occ. ⁽²⁾	—	8998	—	3192
Violators	48	—	16	—
TOTAL	2309	10355	802	3531

RATES	PEAK PERIOD ⁽⁴⁾ 6:30 - 9:30 AM		PEAK HOUR 7:30 - 8:30 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.3 persons/veh		2.3 persons/veh	
Mixed Flow occupancy rate		1.1 persons/veh		1.1 persons/veh
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	4.8 %		4.5 %	

- NOTES:** (1) Two or more occupants per vehicle.
 (2) Mixed flow lanes only.
 (3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
 (4) HOV lane in operation from 6:30 to 9:30 A.M.
 (5) Observations conducted 04/10/03 at South of Hearn Avenue Interchange

SONOMA-101

Route 12 to Wilfred Avenue

Southbound - P.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 3:00 - 7:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	36	24	12	4
Buses	13	27	0	7
Carpools ⁽¹⁾	2113	1453	609	327
Vanpools	1	2	0	1
Single Occ. ⁽²⁾	—	10531	—	2922
Violators	61	—	11	—
TOTAL	2224	12037	632	3261

PERSONS	PEAK PERIOD ⁽⁴⁾ 3:00 - 7:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	36	24	12	4
Buses	455	945	0	245
Carpools ⁽¹⁾	4460	3066	1291	674
Vanpools	10	20	0	10
Single Occ. ⁽²⁾	—	10531	—	2922
Violators	61	—	11	—
TOTAL	5022	14586	1314	3855

RATES	PEAK PERIOD ⁽⁴⁾ 3:00 - 7:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane occupancy rate	2.3 persons/veh		2.1 persons/veh
Mixed Flow occupancy rate	1.2 persons/veh		1.2 persons/veh	
Overall occupancy (incl. buses)	1.4 persons/veh		1.3 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	2.7 %		1.7 %	

NOTES: (1) Two or more occupants per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 04/10/03 at South of Hearn Avenue Interchange

SONOMA-101

Wilfred Avenue to Route 12

Northbound - A.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 6:30 - 9:30 AM		PEAK HOUR 7:30 - 8:30 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	20	11	8	6
Buses	16	0	7	0
Carpools ⁽¹⁾	751	480	312	131
Vanpools	2	0	0	0
Single Occ. ⁽²⁾	—	7628	—	2763
Violators	50	—	11	—
TOTAL	839	8119	338	2900

PERSONS	PEAK PERIOD ⁽⁴⁾ 6:30 - 9:30 AM		PEAK HOUR 7:30 - 8:30 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	20	11	8	6
Buses	560	0	245	0
Carpools ⁽¹⁾	1585	1005	649	274
Vanpools	20	0	0	0
Single Occ. ⁽²⁾	—	7628	—	2763
Violators	50	—	11	—
TOTAL	2235	8644	913	3043

RATES	PEAK PERIOD ⁽⁴⁾ 6:30 - 9:30 AM		PEAK HOUR 7:30 - 8:30 AM	
	HOV Lane occupancy rate	2.7 persons/veh		2.7 persons/veh
Mixed Flow occupancy rate	1.1 persons/veh		1.0 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	6.0 %		3.3 %	

NOTES: (1) Two or more occupants per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 6:30 to 9:30 A.M.

(5) Observations conducted 04/09/03 at North of Todd Road Interchange

SONOMA-101

Wilfred Avenue to Route 12

Northbound - P.M.

Typical data for 2003 ⁽⁵⁾

VEHICLES	PEAK PERIOD ⁽⁴⁾ 3:00 - 7:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	66	13	20	4
Buses	19	23	4	4
Carpools ⁽¹⁾	2008	846	598	167
Vanpools	9	0	4	0
Single Occ. ⁽²⁾	—	10482	—	3014
Violators	70	—	21	—
TOTAL	2172	11364	647	3189

PERSONS	PEAK PERIOD ⁽⁴⁾ 3:00 - 7:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	66	13	20	4
Buses	665	805	140	140
Carpools ⁽¹⁾	4194	1789	1251	351
Vanpools	90	0	40	0
Single Occ. ⁽²⁾	—	10482	—	3014
Violators	70	—	21	—
TOTAL	5085	13089	1472	3509

RATES	PEAK PERIOD ⁽⁴⁾ 3:00 - 7:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane occupancy rate	2.3 persons/veh		2.3 persons/veh
Mixed Flow occupancy rate	1.2 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate ⁽³⁾ (HOV Lane)	3.2 %		3.2 %	

NOTES: (1) Two or more occupants per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate = $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 10/16/03 at North of Todd Road Interchange

SONOMA-101

Route 12 to Wilfred Avenue

Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Thu Apr 10, 2003	6:30 - 9:30 AM	997	4.8%
	Tue Dec 10, 2002	6:30 - 9:30 AM	951	5.8%
P.M. PEAK	Thu Apr 10, 2003	3:00 - 7:00 PM	2224	2.7%
	Tue Dec 10, 2002	3:00 - 7:00 PM	1645	2.9%

NOTES: (a) Morning period of operation from 6:30 to 9:30 AM.
(b) Evening period of operation from 3:00 to 7:00 PM.

SONOMA-101

Wilfred Avenue to Route 12

Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
A.M. PEAK	Wed Apr 9, 2003	6:30 - 9:30 AM	839	6.0%
	Thu Dec 5, 2002	6:30 - 9:30 AM	696	6.6%
P.M. PEAK	Thu Oct 16, 2003	3:00 - 7:00 PM	2172	3.2%
	Thu Dec 5, 2002	3:00 - 7:00 PM	2145	1.9%

NOTES: (a) Morning period of operation from 6:30 to 9:30 AM.
(b) Evening period of operation from 3:00 to 7:00 PM.

HOV TOLL GATES

VOLUME/PERSON DATA

HOV TOLL GATE

Richmond-San Rafael Bridge Toll Plaza

CONTRA COSTA - 580

Westbound - A.M.

Typical data for 2003 ⁽³⁾

	PEAK PERIOD ⁽²⁾ 5:00 - 10:00 AM	PEAK HOUR 7:00 - 8:00 AM
VEHICLES		
Motorcycles	71	16
Buses	15	2
Vanpools	13	7
Carpools ⁽¹⁾	416	144
Total HOVs	515	169
1 Occupancy	731	209
2 Occupancy	255	104
TOTAL	1501	482
PERSONS		
Motorcycles	71	16
Buses	525	70
Vanpools	130	70
Carpools ⁽¹⁾	1165	403
Total HOVs	1891	559
1 Occupancy	731	209
2 Occupancy	510	208
TOTAL	3132	976
RATES		
HOV Occupancy Rate	3.7 persons/veh	3.3 persons/veh
Mixed Flow Occupancy Rate	1.3 persons/veh	1.3 persons/veh
Overall Occupancy (incl. buses)	2.1 persons/veh	2.0 persons/veh

NOTES: (1) 3 or more persons per vehicle & 2 - seater vehicles with 2 persons.

(2) HOV operation hours from 5:00 to 10:00 AM and 3:00 to 6:00 PM.

(3) Observations conducted 5/20/03 at Toll Plaza .

HOV TOLL GATE

Richmond-San Rafael Bridge Toll Plaza

CONTRA COSTA - 580

Westbound - P.M.
 Typical data for 2003 ⁽³⁾

VEHICLES	PEAK PERIOD ⁽²⁾	PEAK HOUR
	3:00 - 6:00 PM	4:00 - 5:00 PM
Motorcycles	45	13
Buses	8	6
Vanpools	17	4
Carpools ⁽¹⁾	244	99
Total HOVs	314	122
1 Occupancy	333	122
2 Occupancy	44	17
TOTAL	691	261
PERSONS		
Motorcycles	45	13
Buses	280	210
Vanpools	170	40
Carpools ⁽¹⁾	683	277
Total HOVs	1178	540
1 Occupancy	333	122
2 Occupancy	88	34
TOTAL	1599	696
RATES		
HOV Occupancy Rate	3.8 persons/veh	4.4 persons/veh
Mixed Flow Occupancy Rate	1.1 persons/veh	1.1 persons/veh
Overall Occupancy (incl. buses)	2.3 persons/veh	2.7 persons/veh

NOTES: (1) 3 or more persons per vehicle & 2 - seater vehicles with 2 persons.
 (2) HOV operation hours from 5:00 to 10:00 AM and 3:00 to 6:00 PM.
 (3) Observations conducted 5/21/03 at Toll Plaza .

HOV TOLL GATE

Antioch Bridge Toll Plaza

CONTRA COSTA -160

Northbound - A.M.

Typical data for 2003 ⁽³⁾

PEAK PERIOD ⁽²⁾

6:00 - 9:00 AM

PEAK HOUR

6:00 - 7:00 AM

VEHICLES

Motorcycles	8	1
Buses	1	0
Vanpools	4	2
Carpools ⁽¹⁾	52	32
Total HOV	65	35
1 Occupancy	981	373
2 Occupancy	201	72
TOTAL	1247	480

PERSONS

Motorcycles	8	1
Buses	35	0
Vanpools	40	20
Carpools ⁽¹⁾	161	99
Total HOV	244	120
1 Occupancy	981	373
2 Occupancy	402	144
TOTAL	1627	637

RATES

HOV Occupancy Rate	3.8 persons/veh	3.4 persons/veh
Mixed Flow Occupancy Rate	2.0 persons/veh	2.0 persons/veh
Overall Occupancy (incl. buses)	1.3 persons/veh	1.3 persons/veh

NOTES: (1) 3 or more occupants per vehicle & 2-seater vehicles with 2 persons.

(2) HOV operation hours 5:00 to 10:00 AM.

(3) Observations conducted 5/21/03 at Toll Plaza.

HOV TOLL GATE

Antioch Bridge Toll Plaza

CONTRA COSTA -160

Northbound - P.M.

Typical data for 2003 ⁽³⁾

PEAK PERIOD ⁽²⁾

3:00 - 6:00 PM

PEAK HOUR

3:00 - 4:00 PM

VEHICLES

Motorcycles	15	7
Buses	4	3
Vanpools	1	0
Carpools ⁽¹⁾	82	29
Total HOV	102	39
1 Occupancy	1376	495
2 Occupancy	299	112
TOTAL	1777	646

PERSONS

Motorcycles	15	7
Buses	140	105
Vanpools	10	0
Carpools ⁽¹⁾	254	90
Total HOV	419	202
1 Occupancy	1376	495
2 Occupancy	598	224
TOTAL	2393	921

RATES

HOV Occupancy Rate	4.1 persons/veh	5.2 persons/veh
Mixed Flow Occupancy Rate	2.0 persons/veh	2.0 persons/veh
Overall Occupancy (incl. buses)	1.3 persons/veh	1.4 persons/veh

NOTES: (1) 3 or more occupants per vehicle & 2-seater vehicles with 2 persons.

(2) HOV operation hours 3:00 to 7:00 PM.

(3) Observations conducted 5/20/03 at Toll Plaza

HOV TOLL GATE

Benicia-Martinez Bridge Toll Plaza

Northbound - A.M.

Typical data for 2003 ⁽³⁾

SOLANO - 680

PEAK PERIOD ⁽²⁾

6:00 - 9:00 AM

PEAK HOUR

7:00 - 8:00 AM

VEHICLES

Motorcycles	33	10
Buses	21	10
Vanpools	30	7
Carpools ⁽¹⁾	100	34
Total HOV	184	61
1 Occupancy	5009	1871
2 Occupancy	1459	505
TOTAL	6652	2437

PERSONS

Motorcycles	33	10
Buses	735	350
Vanpools	300	70
Carpools ⁽¹⁾	310	105
Total HOV	1378	535
1 Occupancy	5009	1871
2 Occupancy	2918	1010
TOTAL	9305	3416

RATES

HOV Occupancy Rate	7.5 persons/veh	8.8 persons/veh
Mixed Flow Occupancy Rate	2.0 persons/veh	2.0 persons/veh
Overall Occupancy (incl. buses)	1.4 persons/veh	1.4 persons/veh

NOTES: (1) 3 or more persons per vehicle & 2 - seater vehicles with 2 persons.

(2) HOV operation hours from 5:00 to 10:00 AM.

(3) Observations conducted 6/4/03 at Toll Plaza.

HOV TOLL GATE

Benicia-Martinez Bridge Toll Plaza

Northbound - P.M.

Typical data for 2003 ⁽³⁾

SOLANO - 680

PEAK PERIOD ⁽²⁾

3:00 - 7:00 PM

PEAK HOUR

5:00 - 6:00 PM

VEHICLES

Motorcycles	19	8
Buses	11	3
Vanpools	25	10
Carpools ⁽¹⁾	496	162
Total HOV	551	183
1 Occupancy	8952	3237
2 Occupancy	1749	519
TOTAL	11252	3939

PERSONS

Motorcycles	19	8
Buses	385	105
Vanpools	250	100
Carpools ⁽¹⁾	1538	502
Total HOV	2192	715
1 Occupancy	8952	3237
2 Occupancy	3498	1038
TOTAL	14642	4990

RATES

HOV Occupancy Rate	4.0 persons/veh	3.9 persons/veh
Mixed Flow Occupancy Rate	2.0 persons/veh	2.0 persons/veh
Overall Occupancy (incl. buses)	1.3 persons/veh	1.3 persons/veh

NOTES: (1) 3 or more persons per vehicle & 2 - seater vehicles with 2 persons.

(2) HOV operation hours from 3:00 to 7:00 PM.

(3) Observations conducted 4/17/03 at Toll Plaza.